BY ORDER OF THE COMMANDER
AIR FORCE MATERIEL COMMAND

AFMC INSTRUCTION 24-201

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Transportation

AFMC PACKAGING AND MATERIALS HANDLING POLICIES AND PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction establishes the packaging, testing, and materials handling responsibilities of HQ AFMC/ LGTT (Traffic Management Branch), AFMC-LSO/LOP (Air Force Packaging Technology and Engineering Facility (AFPTEF)), the AFMC air logistics centers' packaging management sections (ALC/LGMT), and the Air Force Product Centers. It does not apply to U.S. Air Force Reserve or Air National Guard (ANG) units or members. It sets up policies and gives guidance for packaging and materials handling requirements in contracts, data systems, design and testing, and in the reporting of discrepancies. This instruction implements policies and procedures contained in Air Force Policy Directive (AFPD) 24-2, *Preparation and Movement of Air Force Materiel*, and Air Force Instruction 24-202, *Preservation and Packing.*

SUMMARY OF REVISIONS

Most of the changes were small, but essential. Major changes affected Chapter 3 which now includes the recently developed AFMC FAR clauses covering preservation, packing, and marking IAW the requirements of Acquisition Reform. Also included in Chapter 3 are the latest revision of AFMC Form 158, **Packaging Requirements** and European Union environmental requirements.

Chapter 1

RESPONSIBILITIES

1.1. General. The primary responsibility of the Air Force Materiel Command (AFMC) is to provide acquisition and logistics support for the Air Force. To successfully accomplish this goal for packaging, the ALC packaging management section (ALC/LGMT) and Product Center packaging management section personnel provide worldwide packaging support for Air Force assets.

1.1.1. The title, "ALC/LGMT", will refer to the packaging specialists at the AFMC Air Logistics Centers' packaging management sections. The title, "Product Center packaging management section personnel", represents the packaging specialists at the AFMC Product Centers (See Attachment 1). Together, they will be presented as "ALC/LGMT and Product Center packaging management section personnel".

1.1.2. The ALC/LGMT and Product Center packaging management sections must follow the procedures set forth in this document and;

- AFMAN(I) 24-206 (formerly AFR 71-6), *Packaging of Materiel*;
- AFPD 24-2; Preparation and Movement of Air Force Materiel;
- AFI 24-202, Preservation and Packing;
- AFJMAN 24-204, Preparing Hazardous Materials for Military Air Shipment, and other packaging regulatory/procedural documents, such as joint publications, as applicable.

1.1.3. Attachment 1 contains packaging definitions and Attachment 2 is a list of sources of packaging guidance.

1.2. HQ AFMC Packaging Policy Responsibilities. AFPD 24-2 contains information regarding HQ AFMC responsibilities. HQ AFMC packaging policy is located in the Transportation Division (HQ AFMC/LGT), Traffic Management Branch at HQ AFMC/LGTT, Building 262, Room B117, 4375 Chidlaw Road, Wright-Patterson AFB, OH 45433-5006. The following are general responsibilities related specifically to AFMC:

1.2.1. Follow policies and procedures set forth by higher headquarters.

1.2.2. Establish and monitor AFMC procedures on packaging, with emphasis on standardizing procedures, cost effectiveness, and overall improvement/simplification. Coordinate procedures with appropriate Air Force organizations and military services/agencies. Participate in the development of Air Force packaging policies and procedures.

1.2.3. Exercise staff management over AFMC packaging programs. Provide technical directions, plans, and programs for the life cycle of Air Force materiel. Develop proactive procedures to ensure AFMC implements new Department of Defense (DoD) or Air Force directives quickly.

1.2.4. Participate on military service/agency and industry packaging groups to develop regulatory, procedural, or standardized efforts to enhance the AFMC packaging mission.

1.2.5. Evaluate and implement AFMC field recommendations for changes or improvements to Air Force packaging policies when appropriate. Forward recommendations, through HQ AFMC/LGTT, to the Air Force Packaging Policy office at AFMC-LSO/LOPP, 5215 Thurlow Street, Wright-Patterson AFB OH 45433-5540, for action if recommendations have Air Force-wide application.

1.2.6. Participate in the development, revision, and implementation of packaging training programs to maintain a proficient AFMC packaging capability.

1.2.7. Encourage AFMC use of environmentally sound packaging practices and reusable containers.

1.2.8. Evaluate AFMC recommendations for standard material and container sizes based on factors such as anticipated use, projected need and availability at Air Force installations, cost savings, existing sizes and materials, etc.

1.2.9. Serve as command focal point for lessons learned in the area of packaging.

1.2.10. Evaluate requests for new AFMC packaging data system applications, keeping DoD, Defense Logistics Agency (DLA), and Air Force initiatives in mind prior to approval.

1.2.11. Update common item and clear text tables in the stock control and distribution (SC&D) system. (See Chapter 6).

1.3. Air Force Test, Design, and Evaluation Activities. The Air Force maintains in-house packaging design, prototype test, and evaluation capabilities. This capability can be used developmentally or to solve packaging engineering problems.

1.3.1. The Air Force Packaging Technology and Engineering Facility (AFPTEF), AFMC-LSO/LOP, 5215 Thurlow Street, Wright-Patterson AFB OH 45433-5540, is the central packaging engineering organization for the Air Force. They provide the primary source for packaging engineering development, investigation, test, and evaluation of specialized containers, materials, methods, and techniques.

1.3.2. The Packaging and Transportation Division (AAC/WMGC, Building 614, 102 West D Ave, Suite 168, Eglin AFB FL 32542-5313), is co-located with the primary Air Force munitions customer. They have in-house design and prototype and development capabilities, specializing in reusable shipping and storage containers for munitions.

1.3.3. The Container Design Retrieval System Management Office (CDRS/MO) maintains a computerized data record of existing specialized containers, corresponding design drawings, and information. These are used for technical analysis and container reuse applications, thus reducing acquisition costs and increasing the options available to the procurement activity. Additionally, it acts as a central focal point for DoD container information. CDRS/MO can be contacted through AAC/WMGC, Attn: CDRS/MO, Building 614, 102 West D Avenue, Suite 168, Eglin AFB FL 32542-5313.

1.3.4. Additional information on test and design capabilities, and assistance will be found in Chapter 7.

1.4. Responsibilities of the ALC Packaging Management Sections (ALC/LG MT). ALC/LGMT packaging management sections shall:

1.4.1. Establish management procedures consistent with DoD, Air Force, and AFMC policies and procedures to accomplish the assigned mission. Review higher level and local directives to determine their application to the packaging program. Implement applicable higher HQ directives, policies, and procedures through local supplements or operating instructions.

1.4.2. Develop, obtain, and maintain packaging data for assigned items. Provide technical assistance to Product Center packaging management section personnel and user commands. Approve contractor-prepared packaging data for use when acceptable.

1.4.3. Provide packaging, handling, storage, and transportability (PHS&T) input to planning and program documents. Review operational concepts to ensure that packaging considerations have been addressed. Provide PHS&T input to Requests for Proposals (RFP), Statements of Work (SOW), Statements of Objectives (SOO), Contract Data Requirements Lists (CDRL), and Instructions to Offeror (ITO) for all acquisition phases."

1.4.4. Support data call requirements/data requirements review boards (DRRB) to ensure packaging data item descriptions (DID) are included in contractual documents when it has been determined to be advantageous to procure packaging data from contractors.

1.4.5. Coordinate with the Product Center packaging management section personnel on requirements for acquisition contracts.

1.4.6. Serve as the technical advisor for Air Force packaging matters at the ALCs.

1.4.7. Evaluate contractor PHS&T proposals during source selection. Develop, obtain, and maintain procedures to ensure that adequate, cost-effective packaging is developed or provided for new systems and equipment. Assist program managers to ensure Air Force packaging objectives are met during research, development, test, and production.

1.4.8. Establish and maintain liaison with the commercial packaging industry. Evaluate commercial packaging methods and materials to reduce costs. Maintain contact with product centers, other commands, military services/agencies, and industry to advance state-of-the-art packaging and to promote understanding of the policies and procedures related to military packaging. Send requests for evaluation, development, and possible Air Force application of new materials and containers to AFMC-LSO/LOP (AFPTEF) or AAC/WMGC, as appropriate. Prior to sending requests, research the joint service document AFMAN(I) 24-206 (formerly AFR 71-6), to determine the lead activity responsible for the material or container.

1.4.9. Establish and maintain the ability to evaluate new or revised packaging methods and procedures for assigned items. Use the Computer Aided Design System (CADS) to assist in the development evaluation process. Send packaging design and application problems which exceed local capabilities to AFMC-LSO/LOP (AFPTEF) or AAC/WMGC, as appropriate.

1.4.10. Establish and maintain a program to minimize deficiencies that result from improper packaging of Air Force items. Analyze trends in SF 364, **Supply Discrepancy Reports (SDR), Quality Deficiency Reports (QDR), and Material Deficiency Reports (MDR**) to determine if changes to the prescribed packaging requirements are needed (see Chapter 9).

1.4.11. Establish and manage a method of packaging cost analysis to ensure economical, yet adequate, protection throughout the life-cycle of the material. Investigate the potential applications for standardized containers or methods to keep costs down. When requested by the ALC contracting personnel, other commands and military services/agencies, provide estimated costs based on packaging services contracts (PSC) (See Chapter 8) or obtain estimated costs from Defense Distribution Depot packaging operations. Send recommendations for standard packaging materials and containers (such as fast packs, standard packs, and standard container sizes) to AFMC-LSO/LOP (AFPTEF). Include information that will assist their evaluation, such as anticipated usage, availability, costs savings, etc.

1.4.12. Use and support approved packaging data systems. Contact HQ AFMC/LGTT, Transportation Management Branch, prior to upgrading or developing packaging data systems or developing systems applications that impact or interface with packaging data systems.

1.4.13. Work closely with the ALC career development office to ensure packaging management function personnel receive effective training, or to establish a local training program. Work with AFMC-LSO/LOPP (Packaging Policy) to ensure that DoD packaging courses meet Air Force needs.

1.4.14. Participate in program reviews and audits, such as preliminary design reviews (PDR), critical design reviews (CDR), configuration audits (CA), contract repair teams (CRT), and other committees/ meetings as appropriate to ensure adequate packaging coverage. Participate in field visits to using commands and industrial facilities during research, development, and test, as appropriate.

1.4.15. Act as a point of contact for projects and field investigations requested in support of AFMC-LSO/LOP (AFPTEF).

1.4.16. Maintain graphics support capability, including drafting, technical illustration, CADS, and SPIDDS (Special Packaging Instruction Development and Distribution System). Maintain responsibility for the local operation of the CADS. (See Chapter 5)

1.4.17. Advise AFMC-LSO/LOPP (Packaging Policy) of any packaging problems/solutions.

1.4.18. Prepare specifications, SOWs, SOOs, and test plans for specialized containers.

1.5. AFMC Product Center Packaging Management Section Responsibilities. Product Center packaging management section personnel shall:

1.5.1. Establish management procedures consistent with DoD, Air Force, and AFMC policies and procedures to accomplish the assigned mission. Review higher level and local directives to determine their application to the packaging program. Implement applicable higher HQ directives, policies, and procedures through local supplements or operating instructions.

1.5.2. Serve as technical advisor for Air Force packaging matters at the product centers. Assist program managers to ensure Air Force packaging objectives are met during research, development, test, and production.

1.5.3. Provide PHS&T input to planning and program documents. Review operational concepts to ensure that packaging considerations have been addressed. Provide PHS&T input to RFPs, SOOs, CDRLs, and ITOs for all acquisition phases.

1.5.4. Support DRRBs to ensure packaging DIDs are included in contractual documents when it has been determined it is advantageous to procure packaging data from contractors.

1.5.5. Assist ALC/LGMT personnel in preparation of specifications, SOWs, SOOs, and test plans for specialized containers.

1.5.6. Evaluate contractor PHS&T proposals during source selection. Develop, obtain, and maintain procedures to ensure that adequate, cost-effective packaging is developed/provided for new systems and equipment. Coordinate with the responsible ALC/LGMT as necessary.

1.5.7. Participate in program reviews and audits, such as PDRs, CDRs, CAs, CRTs and other committees/meetings as appropriate to ensure adequate packaging coverage. Participate in field visits to using commands and industrial facilities during research, development, and test, as appropriate.

1.5.8. Establish and maintain liaison with commercial packaging industry. Evaluate commercial packaging methods and materials to determine adaptability. Exchange information with the ALC/ LGMTs, other commands, military services/agencies, and industry to advance the state-of-the-art

packaging and to promote understanding of policies and procedures related to military packaging. Send requests for evaluation, development, and possible Air Force application of new materials and containers to AFMC-LSO/LOP (AFPTEF) or AAC/WMGC, as appropriate. Prior to sending requests, research the joint service document AFMAN(I) 24-206 (formerly AFR 71-6) to determine the lead activity responsible for the material or container.

1.5.9. Establish and manage a method of packaging cost analysis to ensure economical, yet adequate, protection throughout the life-cycle of the material. Investigate the potential applications for standardized containers to keep costs down, consulting with AFMC-LSO/LOP (AFPTEF) or AAC/WMGC, as appropriate. When requested by ALC contracting personnel, other commands, or military services/agencies, the depot shall provide estimated costs on PSCs or obtain estimated costs from Defense Distribution Depot packaging operations.

1.5.10. Work closely with the center career development office to ensure effective training is provided (or a local training program is established) for personnel involved with packaging. Work with AFMC-LSO/LOPP (Packaging Policy) to ensure that DoD packaging courses meet Air Force needs.

1.5.11. Coordinate acquisition packaging requirements for new systems and equipment with ALC/LGMTs.

1.5.12. Advise AFMC-LSO/LOPP, (Packaging Policy), of any packaging problems/solutions.

Chapter 2

AFMC PACKAGING MANAGEMENT SECTION COORDINATION AND CONFERENCE PARTICIPATION

2.1. General. ALC/LGMT and Product Center packaging management section personnel should coordinate their efforts to maintain the integrity of the Air Force packaging program from cradle-to-grave. They must comply with contracted data items, and also:

- MIL-STD-1366, *Definition of Materiel Transportation System Dimensional and Weight Constraints*.
- MIL-PRF-49506, Logistics Management Information.
- MIL-STD-2073-1, Standard Practice for Military Packaging.
- Other acquisition-related documents for all new and modified systems, equipment, and materiel to ensure adequate packaging support throughout the life-cycle.

2.2. AFMC Product Centers. Product Center packaging management and transportation section personnel support acquisition logistics by providing their expertise and developing packaging procedures, concepts, and objectives for Air Force systems and equipment during acquisition.

2.2.1. Packaging is a function which should be closely coordinated with the actual design and manufacture of an item. Proper PHS&T must be identified during acquisition as part of integrated logistics support (ILS) planning. This identification must be made as early as possible in the acquisition life-cycle.

2.2.2. To manage acquisition of systems/equipment effectively, PHS&T problems which may restrict movement to specific modes of transportation or cause unnecessary packaging must be identified and corrected, or avoided, during item design rather than corrected through costly engineering change proposals (ECPs).

2.2.3. Since transportability is a function of both transportation and packaging, the Product Center packaging management section ensures that both disciplines are considered during coordination of transportability reports submitted by the contractor.

2.3. AFMC Air Logistics Centers (ALCs). Immediately upon assignment of responsibility, an ALC/LGMT will designate a packaging specialist. The appropriate program manager will be advised of this assignment in writing to ensure coordination on matters relating to packaging and handling requirements for the system.

2.3.1. A packaging specialist from the responsible ALC/LGMT shall be included as an active member of the ILS team to participate in the acquisition effort. This ensures that, during interim design and acquisition, proper consideration is given to factors which may create unnecessary packaging and handling problems during logistics support.

2.3.2. The prime ALC/LGMT assists the product centers and reviews technical packaging and handling data. All of the ALC/LGMT and Product Center packaging management sections should maintain communication and coordination with each other to ensure that optimum standardization and economy is achieved in the packaging and handling aspects of system development and acquisition.

2.4. Committees, Reviews, and Reports. An ALC/LGMT representative from the ALC having life-cycle management responsibility shall participate in committees or meetings as required to ensure adequate packaging considerations. When it increases the continuity of the AFMC packaging program, representation will be encouraged by ALC/LGMT and Product Center packaging management section personnel. These include, but are not limited to:

2.4.1. PDRs, CDRs, First Article Configuration Inspections (FACI). ALC/LGMT personnel shall participate in PDRs, CDRs, FACIs, and test programs which impact upon the packaging and handling support required of AFMC.

2.4.1.1. This is an area which requires continuous coordination between ALC/LGMT and Product Center packaging management sections to ensure the appropriate packaging specialists are advised of, and actively participate in, these reviews whenever packaging or handling is involved.

2.4.1.2. Details concerning proposed preservation and packing are provided by the contractor in the preparation for delivery section of part II of the configuration item (CI) specification. These specifications are prepared for the more complex items of equipment and spares. CI specifications may also be required for containers which are not covered by existing military specifications or when they involve special requirements in terms of materials, added features, etc. The formal approval and acceptance of part two of the CI detail specification is a product of the FACI.

2.4.2. Critical Item Review (CIR) Committee. ALC/LGMT personnel shall participate in CIRs to identify and prevent unfavorable conditions attributable to packaging and handling. Packaging and handling problem areas identified with a system shall be reported to a program manager, or item manager (IM), as appropriate. Participation is also recommended on logistics support preliminary task groups.

2.4.3. Participation During Development, Test, and Technical Evaluation of Systems/Equipment. ALC/LGMT personnel provide packaging support for research and development. They also provide AFMC packaging requirements for installs and items bought for test purposes. The ALC/LGMT personnel participate in the evaluation of systems, component design, and performance during development, test, and production phases, as required, to ensure conformance to logistics transportability and mobility objectives, transportation plans, and logistics packaging handling requirements.

2.4.4. Operational Test and Evaluation (OT&E). Evaluation of the contractor's proposed preservation and packing is based upon AFMC PHS&T criteria previously established and incorporated into applicable contractual and planning documents. Special test requirements or requests for changes in AFMC or contractor test criteria are provided to the program office (or designated representative) for inclusion in contracts. To ensure proper coverage and evaluation during initial OT&E, the ALC/LGMT personnel supporting the program office shall prepare a preservation and packing checklist and participate in the evaluation as required.

2.4.5. Reports/Evaluations. Evaluations of system components, support equipment design, or requested changes are developed in conjunction with inspections and tests. They are provided through established channels to the program office. Evaluations are based upon packaging requirements; and ease of handling, mobility, and transportability. Examples of factors to be considered during evaluations include, but are not limited to:

2.4.5.1. In the design effort, overall dimensions in the system and components should be minimized to reduce problems of PHS&T. Where practical, configuration must permit movement by

alternate methods, and provisions must be made to permit disassembly of containers and equipment to reduce cube and tare for shipment.

2.4.5.2. All containers or handling devices for the systems or equipment should be compatible with related handling systems' loading requirements to allow for quick transfer between transportation modes, interchangeability, and standardization.

2.4.6. Participation in Guidance Meetings. Representatives from the responsible ALC/LGMT must actively participate in scheduled provisioning and support equipment guidance conferences. Their role is to provide general assistance that will help the contractor comply with the logistics packaging requirements for spares and repair parts acquired as part of the contract. They also provide guidance concerning logistics requirements for packaging and handling of support equipment.

2.4.7. Provisioning Conferences. The ALC/LGMTs provide packaging support, as required, for items being acquired based on the spare and repair parts provisioning document(s) submitted by the contractor in accordance with the contract.

2.4.7.1. When items are acquired through provisioning action, the AFMC Form 158, **Packaging Requirements**, shall be completed indicating the contractor will develop and submit packaging data if Data Item Descriptions (DIDs) DI-PACK-80120A (Packaging Coded Data) and DI-PACK-80121A (Special Packaging Instruction) have been included as part of the contractual agreement.

2.4.7.2. When economically feasible, the responsible ALC/LGMT personnel participate in source coding and provisioning meetings to establish detailed packaging requirements and to resolve problems concerning packaging of Air Force selected and managed items. These items are maintenance source-coded in the "P" series and parts kit-coded "D" or "F." Definitions of maintenance source codes are listed in TO 00-25-195, *Source, Maintainability, and Recoverability Coding of Air Force Weapons, Systems, and Equipment*. This support is provided during meetings convened by the ALC and the resident provisioning teams.

2.4.7.2.1. Responsibilities of Participating ALC/LGMTs. Detailed packaging data should be developed by the responsible ALC/LGMT for all items ERRC coded C, S, or T. Upon notification of a source coding conference, the responsible ALC/LGMT personnel will contact other ALC/LGMTs that manage items being considered, requesting participation or delegation of packaging responsibilities.

2.4.7.2.2. Source Coding by Depot Provisioning Committee. When source coding is accomplished by a depot provisioning committee, ALC/LGMT personnel participating in the meeting, determine and specify packaging requirements for those managed items coded for acquisition.

2.4.7.2.3. Source Coding/Provisioning at Contractor Facilities. When provisioning for new items are held at the contractor's facility, the participating ALC/LGMT personnel can develop and furnish detailed packaging data to the contractor on DD Form 2326, **Preservation and Packing Data**. Participation of ALC/LGMT personnel in these meetings is important. Post-provisioning meetings may be arranged for ALC/LGMT development of data if that alternative is more suitable to both the contractor and the ALC.

2.4.7.2.4. Provisioning Under Resident Provisioning Team (RPT) Procedures:

2.4.7.2.4.1. During the provisioning guidance meeting, representatives of the contract administration office, contractor, and ALC arrange details concerning the scheduling of the participating ALC/LGMT personnel visits to the contractor's facility to develop packaging requirements.

2.4.7.2.4.2. ALC/LGMT personnel shall visit the contractor's facility as necessary to determine packaging requirements for items coded for Air Force management. Procedures must be established to ensure that the contractor is either provided with detailed packaging data or with authority to proceed with development of packaging data within mutually agreed upon time limits.

2.4.8. Funding for Provisioning Conference Attendance. Although the participation of the ALC/LGMT personnel in source coding and provisioning meetings is normally encouraged, there shall be some occasions when the small number of items involved may not justify attendance. Travel funds required to attend these meetings must be projected sufficiently in advance so that they can be included in the budget for the appropriate time period.

Chapter 3

CONTRACTUAL PACKAGING REQUIREMENTS

3.1. General. The ALC/LGMTs are responsible for providing contractual packaging requirements for initial systems acquisition and spares support. They must also ensure economical and adequate protection of items which are acquired through local purchase procedures. (This includes contracting documents initiated by AFMC, as well as other Air Force commands, government agencies, and departments.) It is essential that the packaging requirements provided for contracting purposes be complete, accurate, and in compliance with DoD, Air Force, and AFMC packaging policies/procedures and international and federal law.

3.1.1. PHS&T requirements for major systems and equipment acquired by AFMC are normally reflected in SOWs and SOOs and other contractual documents developed by AFMC.

3.1.2. Packaging requirements for the spares and repair parts being acquired as part of the systems or equipment acquisition are established by ALC/LGMT personnel and submitted for inclusion into SOWs and SOOs.

3.1.3. Standard clauses and specifications should be contractually invoked whenever they satisfy Air Force needs. Action is initiated to update or revise any specification found to be inadequate or outdated. The preparing activity or Air Force custodian should be notified if specifications or standards are found to be outdated.

3.1.4. When packaging requirements cannot be satisfied through standard clauses and specifications, special requirements may be developed on a one-time basis. Special requirements for contractual stipulation may include, but need not be limited to, the following:

3.1.4.1. Specific handling procedures to be provided (for example: lifting eyes, skids, fixtures for handling damaged aircraft, etc.).

3.1.4.2. Specific packaging, handling and transportation plan exhibits to be used as a basis for contractor transportability design considerations.

3.1.5. Military specifications, standards, and commercial standards referenced in AFMC or contractor prepared packaging documents should be reviewed to ensure they contain adequate, but not excessive, provisions for packaging support.

3.1.6. Purchase Requests (PR), Military Interdepartmental Purchase Requests (MIPR), and other contractual documents for hardware, spares, supplies, etc., should be routed through the ALC/LGMT for inclusion of packaging requirements. All contract changes, change orders, amendments, or supplemental agreements involving packaging must be coordinated with the ALC/LGMT personnel. However, non-materiel purchases such as services, studies, and changes in funds do not need to be coordinated with the ALC/LGMT personnel. Appropriate packaging forms shall be completed according to instructions contained herein, attached to the acquisition document, and forwarded to the appropriate PR/MIPR control office for inclusion in the contractual document. (This process may be automated if an automated purchase request system is used.)

3.2. Levels of Protection. Attachment 3 contains Air Force recommended packaging levels of protection for various distribution patterns. The table should be used as guidance only.

3.2.1. ALC/LGMT personnel must use their expertise and personal knowledge of anticipated distribution patterns for the materiel when specifying levels of protection. Designation of improper level of packaging could result in unnecessarily increased costs due to over packing and damage caused by lack of adequate protection.

3.2.2. In some cases, complete information concerning destination or anticipated length of time in storage is not furnished to the ALC/LGMT with the contractual document. An example of this is when items are intended for installation, but it is not indicated whether the parts shall be installed within CONUS or overseas. When complete details are not furnished with the contractual document, ALC/LGMT personnel shall conduct research to determine the most economical level of protection based on anticipated distribution/logistics conditions. Information pertaining to anticipated use, length of time in storage, and destination may be on the PR/MIPR or may be available from the initiator of the contractual document.

3.2.3. When stipulating packaging requirements for items that have been designated for immediate use, caution should be exercised to ensure that total storage time shall be limited to less than 6 months.

3.3. Base Level Contracting. When requested, ALC/LGMT personnel assist and provide guidance to the base contracting personnel to ensure that items acquired through local purchase procedures are provided economical and adequate protection. Commercial packaging may be adequate for items acquired through local purchase since they are intended for immediate consumption on base. However, care must be exercised to ensure the packaging complies with federal and international regulations, particularly in the hazardous materials area.

3.4. Contractual Requirements in Support of Security Assistance Programs. Emphasis on the support of the Security Assistance Program is required to ensure that materiel is afforded adequate protection.

3.4.1. Normally, materiel shipped in support of the Security Assistance Program is given military preservation and no less than level B packing. However, it is proper to increase or decrease the level of packing at the request of the recipient country. The degree of preservation and packing provided must ensure safe delivery of material in serviceable condition.

3.4.2. Lower levels of protection shall not be used unless authorized in writing by the requesting country, except as specified in this paragraph. When it is specified on the PR/MIPR the item shall be installed within the CONUS, it is proper to specify commercial preservation and packing which shall furnish the required protection at the point of use or installation.

3.5. Contractual Packaging Requirements. Packaging requirements may either be specified in the contract or action may be initiated to procure the data from the contractor.

3.5.1. ALC/LGMT personnel are responsible for furnishing contractual packaging data for each item being reprocured. This data is extracted from existing data files when available. However, when current approved packaging data is not available in local data files, requirements can be determined from MIL-STD-2073-1, from reviewing item drawings or technical data, or from physically examining items currently in stock. The AFMC Form 158 is the vehicle used to specify contractual packaging requirements (See Attachment 5).

3.5.2. When new items are being bought and approved packaging data is not available and cannot be developed in-house, the required data may be procured from the contractor. ALC/LGMT personnel

determine whether it is practical and economical to obtain contractor-developed data. The DD Form 1423, **Contract Data Requirements List (CDRL)**, is used to document requirements for data items invoked to buy contractor-prepared data. To minimize costs, it is important to verify that the contractual stipulation of packaging specifications, requirements, data items, etc., are accurate, up-to-date, and necessary.

3.5.3. Evaluate contractor recommendations regarding data requirements. Coordinate/develop and submit necessary requirements to the program manager for inclusion in contractual work statements. Review and approve contractor submitted packaging data prior to acceptance or entry into AFMC data systems (such as the Stock Control & Distribution (SC&D)).

3.5.4. Military packaging and quantity per unit pack (QUP) can be stipulated for contractual compliance without requiring the contractor to develop and submit packaging data. This practice is most effective when the item shall be stored at the ALC and the data can be developed later. This procedure may be most suitable when a small number of items are being procured and no provisioning action is involved. However, in order to best assist the contractor in providing items with adequate protection, as much data as possible should usually be furnished to the contractor.

3.6. Procuring Packaging Data From Contractors. Data calls are used to identify the need to procure various data from the contractor as part of the contract. When it is in the best interest of the Air Force for the contractor to develop packaging or transportability data, ALC/LGMT personnel must determine minimum essential data item requirements and provide them as specified in the data call.

3.6.1. DIDs. DIDs are specified in the contract to instruct the contractor as to the information and format required for the appropriate data being procured. The only packaging DIDs that can be provided in response to a data call are those listed in the current edition of DoD 5010.12L, *Acquisition Management Systems and Data Requirements Control List (AMSDL)*, or otherwise approved according to DoD 5000.2-R, *Mandatory Processes for Major Defense Acquisition Programs and Major Automated Information Systems*. DD Form 1423 is used to annotate specifics about data delivery, routing, number of copies required, and tailoring requirements. The DD Form 1423 can only be used to tailor requirements out of the DID or to clarify what is already in the DID. It cannot be used to add requirements to the DID.

3.6.2. Major Packaging DIDs. The major packaging DIDs include:

3.6.2.1. DI-PACK-80120B, *Preservation and Packing Data*.

3.6.2.2. DI-PACK-80121B, *Special Packaging Instructions (SPI).*

3.6.2.3. DI-PACK-81059, *Performance Oriented Packaging (POP) Test Report*.

3.6.2.4. DI-PACK-80683A, *Container Design Retrieval System (CDRS) Search Request*.

3.6.2.5. DI-PACK-80684A, *Container Design Retrieval System (CDRS) Data Input*.

3.6.2.6. DI-MISC-81499, *Packaging Kit Contents List (precedes DI-L-7137).*

3.6.2.7. To obtain transportability information from the contractor, specify DI-PACK-80880A, *Transportability Report*.

3.6.3. Performance Oriented Packaging (POP) Test Reports. Test reports for POP can be obtained by stipulating DI-PACK-81059. It is not mandatory to ask for a contractor's POP test report when procuring hazardous materials packaging data. However, it may be in the best interest of the DoD to

request a contract POP test report when procuring contractor-developed packaging data to ensure the contractor's proposed container design can pass POP tests.

3.6.4. Category E DIDs. Consideration shall be given to requesting a copy of data according to DIDs in Category E (Engineering and Configurations Documentation). These DIDs involve specifications and the data generated by them may provide information relevant to the contractor's proposed protection of primary items being developed. If the DD Form 1423 is not annotated to require submission of such data to the responsible ALC/LGMT, positive action must be taken to ensure access.

3.6.5. DIDs for Provisioning. DI-PACK-80120B and DI-PACK-80121B are stipulated on the DD Form 1423 when items are being acquired through the provisioning process. However, their use is not limited to provisioning actions. During the data call, the initiator should stipulate a requirement that packaging data be individually priced by type (special packaging instructions (SPI) and coded data) or that prices be negotiated for packaging data concurrent with negotiation of prices of the provisioned items. This shall assist the responsible ALC/LGMT in determining the most economical means of data development (in-house or contractor).

3.6.6. SPI Requirements for Reparables. When DI-PACK-80121B is stipulated, a statement such as the following shall will be inserted in Block 16 of the DD Form 1423 to maintain the integrity of the Air Force reusable container program: SPIs, which include drawings and some narrative description, fast or standard packs (IAW TO 00-85B-3, *How to Package Air Force Spares*) shall be developed for all items that are subject to individual shipment between users and a repair facility (reparable items). This includes items coded as expendability, recoverability, reparability category (ERRC) C, S, or T". If it is determined by the packaging specialist at the managing ALC/LGMT to be more advantageous, MIL-STD-2073-1 coded packaging data may be used for certain items instead of a SPI drawing. When DI-PACK-80121B is stipulated, the DD Form 1423 is annotated to require contractors to furnish the original and one copy of the DD Form 2169, **Special Packaging Instruction**, to the responsible ALC/LGMT.

3.6.7. DIDs for Anticipated Long-Life Container Requirements. When development and or use of long-life containers is anticipated, DI-PACK-80683A (Container Design Retrieval System (CDRS) Search Request) and DI-PACK-80684A (Container Design Retrieval System (CDRS) Data Input) must be stipulated on the DD Form 1423. DI-PACK-80683A is used to avoid costly design of long-life containers if an existing design can be used or modified for use. DI-PACK-80684A serves as a means to enter new container designs into the CDRS for future use. The DD Form 1423 must be annotated to require requests for design retrieval be submitted to the CDRS Office (AAC/WMGC, Eglin AFB FL 32542-5313). The responsible ALC/LGMT should annotate the DD Form 1423 so that they obtain an information copy of all design requests. ALC/LGMT personnel may exempt contractors from submitting approved new designs to AAC/WMGC. However, if the ALC/LGMT personnel exempt the contractor from submitting new designs to the CDRS, the ALC/LGMT packaging management section personnel must be responsible for submitting the designs to CDRS. Contact AFMC-LSO/LOP (AFPTEF) or AAC/WMGC if a new long-life container must be developed (See Chapter 7).

3.6.8. Commercial Item Description (CID). Each CID should have a "Packaging, Packing, Marking, and Palletization" paragraph(s). The following paragraph should be a part of all CIDs: "Packaging, Packing, and Palletization: Unless otherwise specified in the contract, packaging, packing, and palletization shall be in accordance with ASTM D3951, *Standard Practice for Commercial Packaging*, as

specified for shipments to the Department of Defense. Marking shall be in accordance with MIL-STD-129."

3.7. AFMC Form 158, Packaging Requirements. Packaging requirements for inclusion in AFMC contractual documents are accomplished on AFMC Form 158 (Attachment 5). The following paragraphs under 3.7 apply to the requirements incorporated on the AFMC Form 158:

3.7.1. Current Packaging Documents and Data. Approved and current specifications and standards, MIL-STD-2073-1 coded/supplemental data, or SPIs must be entered in the appropriate blocks/columns of the AFMC Form 158.

3.7.2. End Item/System Specifications. Before citing packaging requirements on the AFMC Form 158 (or computer generated equivalent), review the applicable end item/system specification, system requirements documents, technical requirements documents, and other contractual documents to ensure that requirements are current, adequate, accurate, and compatible with current Air Force and AFMC policies.

3.7.3. Quantity Per Unit Pack (QUP). Only QUPs that have been approved or furnished by the Item Manager (IM) will be stipulated on the AFMC Form 158. The ALC/LGMT personnel cannot change IM established QUPs unless approved by the IM. Current packaging data records will be reviewed to ensure that the data reflects approved unit package quantities. On PRs/MIPRs, unit package quantities for all items being acquired are annotated by the PR/MIPR initiator immediately following the item nomenclature. When the unit pack quantities seem incompatible with packaging requirements, ALC/LGMT personnel will submit written recommended changes, with rationale, to the appropriate IM, with the understanding that the IM has final control over the establishment of QUP.

3.7.4. Completing AFMC Form 158. In the upper left hand corner of the form, specify the PR, MIPR, or document number (use system name if no number is available). Indicate the page number (Page __ of __) in the upper right hand corner. Complete the rest of AFMC Form 158 (Attachment 5) as follows:

3.7.4.1. Block 1, Packaging Requirements. Complete Block 1, for each item of the PR/MIPR or contract requiring packaging. This block is used for all items and covers military or commercial packaging requirements and should be further defined in Blocks 2, 3, or 4. The commercial ASTM D3951 could be substituted by another document if specified in Block 2.

3.7.4.1.1. Under the "Item ID" column, enter the National Stock Number (NSN) which is comprised of the Federal Supply Class (FSC), National Item Identification Number (NIIN), and sometimes includes the Material Management Aggregation Code (MMAC). If the NSN/MMAC is not available, use the Contract Line Item Number (CLIN), item name as shown on the contractual document, part number, or any other way of identifying a particular item. Throughout the rest of this chapter, "Item Identification" will be referred to as "item".

3.7.4.1.2. Under "QUP", enter the IM's QUP in terms of unit of issue.

3.7.4.1.3. Under "MIL-STD-2073-1", indicate (X) if military preservation "PRES" is required and enter A, B or M (Minimum) under "PACK" to ensure the item will be usable within the logistics pipeline (i.e., when the item is entering the DoD inventory, to be stored outside, Foreign Military Sales (FMS), an overseas shipment, etc.). Use Attachment 3 as a guideline for determining military packaging requirements. If commercial packing is used

then leave "PACK" blank, and under "COMMERCIAL ASTM D3951" indicate (X) for "Pack."

3.7.4.1.4. Under "COMMERCIAL ASTM D3951", indicate (X) when preservation "PRES" is adequate during the anticipated logistics pipeline (i.e. immediate use at first destination and domestic shipments). Indicate (X) for "Pack" when commercial packing is authorized.

3.7.4.1.5. Under "CBP" (commercial best practice), indicate (X) when contractor's commercial best practice is acceptable for preservation if required and for packing. Use only when military packaging is not needed, the contractor will not meet the ASTM D3951 or any other industrial document, and this is the only item that will meet the mission/customer's (user's) needs.

3.7.4.1.6. Under "Special Packaging Instructions Number", enter the entire SPI number or federal/military specification that applies. The SPI can be obtained from the DoD Inventory Control Point (ICP), which is the responsible ALC/LGMT packaging management section. (See Chapter 5)

3.7.4.2. Block 2, Additional Packaging and Container Markings. In this block, place all additional packaging and container marking requirements which cannot be clarified in either Blocks 1, 3, or 4. Specify all revisions and dates of required specifications, standards, and data item descriptions (DIDs). Include the corresponding item from the Block 1 column which shows one of the following; NSN/MMAC, NIIN, Contract Line Item Number (CLIN), or item name as shown on the contracting document to show the relationship.

3.7.4.3. Block 3, Instructions to Contracting Officer. Indicate (X) the appropriate clause(s) to be incorporated into Section D of the contract for each corresponding item identified in Block 1. See AFMCFARS 5347.305-10, *Packaging, Marking, and Consignment Instructions*.

3.7.4.3.1. AFMCFARS 5352.247-9005, *Shipping Container Marking*. Indicate (X) the corresponding item(s) identified in Block 1 which requires over and above MIL-STD-129 bar code marking. Explain these requirements in Block 2.

3.7.4.3.2. AFMCFARS 5352.247-9006, *Marking of Warranted Items*. Indicate (X) the corresponding item(s) identified in Block 1 which requires warranty marking.

3.7.4.3.3. AFMCFARS 5352.247-9007, *Specification Commercial Packaging (ASTM D3951)*. Indicate (X) the item(s) listed in Block 1 which is to be preserved IAW Commercial requirements of ASTM D3951. If military marking is required with this block, AFMCFARS 5352.247-9005 will also be indicated (X).

3.7.4.3.4. AFMCFARS 5352.247-9008, *Contractor Commercial Packaging (Commercial Best Practice (CBP))*. Indicate (X) the item(s) listed in Block 1 which is to be packaged IAW contractors commercial best practice. If military marking is required with this block, AFMCFARS 5352.247-9005 will also be indicated (X).

3.7.4.3.5. AFMCFARS 5352.247-9009, *Military Packaging and Marking*. Indicate (X) the item(s) listed in Block 1 which is to be preserved and marked IAW military requirements. When Military preservation is stipulated, indicate (X) only this clause (in conjunction with any other applicable non-packaging clauses). Do not also indicate (X) clause AFMCFARS 5352.247-9008 if commercial packing is allowed. Only one packaging clause may be indicated for each line item or NSN.

3.7.4.3.6. AFMCFARS 5352.247-9010, *Engineered or Specialized Containers (CDRS).* Indicate (X) the item(s) listed in Block 1 which requires an engineered or specialized container (CDRS).

3.7.4.3.7. AFMCFARS 5352.247-9011, *Packaging and Marking of Hazardous Material*. Indicate (X) the item(s) listed in Block 1 which requires hazardous packaging and marking requirements.

3.7.4.3.8. AFMCFARS 5352.247-9012, *Packaging for Inspection and Acceptance at Destination.* Indicate (X) the item(s) listed in Block 1 which requires inspection of packaging at destination.

3.7.4.3.9. AFMCFARS 5352.247-9013, *Packaging Data (Coded and/or Special Packaging Instructions).* Indicate (X) if packaging data is required and it is desirable to purchase the data from the contractor. This block will be indicated when items are being procured through a provisioning action. If known, indicate the contract number for which data is being procured.

3.7.4.4. Block 4, Coded Data. Complete this block when coded data is available from the DoD Inventory Control Point, which is the responsible ALC/LGMT.

3.7.4.4.1. Under the "Item Identification" column, indicate the item(s) listed in Block 1 (NSN, NIIN, CLIN or item name as shown on the contractual document) and specify the available military coded data for each item(s) as applicable. If using the NSN, include the Material Management Aggregation Code (MMAC) if applicable.

3.7.4.4.2. Specified military coded data shall be in accordance with MIL-STD-2073-1. Column headings and numbers correspond to those on the DD Form 2326 in Appendix E of MIL-STD-2073-1.

3.7.4.5. AFMC Form 158 Reverse Side, European Union Requirements. These European Union requirements, levied on the United States, Canada, China, and Japan, concern environmental infestation. Specific to the Pinewood Nematode, any lumber, packaging/container, or pallet constructed entirely or in part of non-manufactured softwood species shall meet the specifics of these requirements. Involved is a heat treatment process that will eradicate the Pinewood Nematode and reduce moisture in the softwood materials to prevent reinfestation. Compliance also requires certification and conspicuous marking for both softwood and hardwood species.

3.8. Waivers of and Deviations from AFMC Form 158 Requirements. ALC/LGMT or Product Center packaging management section personnel shall review and, if warranted, approve all waivers and deviations concerning AFMC Form 158 packaging requirements. This includes waivers of or deviations from military specifications or standards cited. An amended AFMC Form 158 shall be prepared by ALC/LGMT and Product Center packaging management personnel only, to reflect new requirements if required by the procuring activity.

3.8.1. These exhibits should be used simply to duplicate the requirements of MIL-STD-2073-1. The MIL-STD-2073-1 is used when the documents authorized by AFMC for contractual stipulation do not provide for the peculiarities in the packaging requirements a specific system or material, or when clarification of existing contractual documents is required. Such agreements are invoked when they result in savings or other benefits to the Air Force, at no detriment to the protection of the items involved. When it is apparent that the provisions of the agreement may have recurring AFMC-wide application,

contact AFMC-LSO/LOPP so consideration can be given to adopting the terms of the agreement as a standard AFMC packaging requirement.

3.8.2. When agreements involve items for which an AFMC activity other than the one initiating the agreement has management responsibility, the proposed packaging agreement shall be coordinated in writing with the managing activity before incorporating it into a contract. This should be accomplished as soon as possible after initiation of the requirement.

3.8.3. Caution shall be exercised to make sure packaging requirements do not infringe on areas of responsibility assigned to other DoD agencies. When terms of the agreement affect other AFMC activities or other Air Force or DoD activity the agreement shall be coordinated with them.

3.9. Contractual Requirements for Hazardous Materials. The provisions of DoD Federal Acquisition Regulation (FAR) Supplement 52.228-7007 are cited when specifying packaging requirements for ammunition and explosives. DoD FAR Supplement 52.223-7000 is specified for radioactive materials. FAR 52.223-3 is specified for hazardous material other than ammunition, explosives, and radioactive materials.

3.10. Obtaining Material Safety Data Sheets (MSDS). MSDSs are required for all known hazardous items and for all items shown in FED-STD-313, *Material Safety Data, Transportation Data, and Disposal Data for Hazardous Materials Furnished to Government Activities*, Table I and II. Contract information is identified in the FAR in subpart 23.3 and paragraph 52.223-3. This requirement includes centrally and locally purchased items. (Note that MSDSs are not used in developing transportation data for ammunition and explosive items. Instead, data from DI-L-3311 is sent to OO-ALC/LIW for determination of hazard classification.) Anytime an MSDS is used, the face of the AFMC Form 158 must be stamped “MATERIAL SAFETY DATA SHEET REQUIRED” wherever adequate space is available. The AFMC Form 158 can also be used to highlight the need for POP testing, packaging, and marking requirements in accordance with applicable model requirements.

Transfer of Packaging Data for Logistics Support. Packaging data obtained from the contractor during acquisition must be provided to the responsible ALC/LGMT to ensure adequate spares support. ALC/LGMT personnel identify and incorporate into Section 6 of the transition agreement requirements to transfer the information to the supporting ALC.

3.10.1. Packaging data to be transferred may include drawings furnished by the contractor as part of Section 5, Part II; pertinent CI specifications; and drawings developed for special design protection equipment in support of other CIs.

3.10.2. The transition agreement should be written to ensure the transfer of required packaging and handling information from the program office and any other AFMC acquisition office that may have data.

Chapter 4

HAZARDOUS MATERIALS

4.1. Hazardous Materials. For the purposes of this instruction, the term "hazardous materials" means explosives (Class 1), compressed gases (Class 2), flammable liquids (Class 3), flammable solids (Class 4), oxidizers and organic peroxides (Class 5), poisons and infectious substances (Class 6), radioactive materials (Class 7), corrosive materials (Class 8), and miscellaneous dangerous goods (Class 9), or any substance or material which has been determined to be capable of posing an unreasonable risk to health, safety, or property. The term includes hazardous substances, hazardous wastes, marine pollutants and elevated temperature materials. This definition is also contained in 49 CFR 100-199 and joint service publication AFJMAN 24-204. Definitions for worker safety and health purposes are contained in 29 CFR 1910.1200.

4.2. Hazardous Materials Regulatory Guidance. The following documents govern packaging requirements for various modes:

4.2.1. Water Shipments (International). International Maritime Organization (IMO), International Dangerous Goods (IMDG) Code.

4.2.2. Airlift. International Civil Aviation Organization (ICAO), Technical Instructions for the Safe Transport of Dangerous Goods by Air, International Air Transport Association (IATA), Dangerous Goods Regulations, or AFJMAN 24-204.

4.2.3. Mail and Parcel Post Shipments. AFI 24-201, *Cargo Movement, and Transportation of Material*, and Postal Regulations, parts 124-125.

4.2.4. All Modes (Domestic). 49 CFR 100-199 for packaging and transportation requirements and 29 CFR 1910.1200 for communication requirements. The Occupational Safety and Health Administration (OSHA) Hazard Communication Standard ensures that all chemicals produced or imported by chemical manufacturers or importers are evaluated to ensure that workers who come into contact with them are apprised of the hazards. Personnel who deal with hazardous materials require training in accordance with the hazardous communication standard. Information regarding hazardous materials is transmitted by container labeling and other forms of warning, MSDS, and employee training.

4.2.5. Department of Transportation Training. 49 CFR 172.702 and 704. The Department of Transportation (DOT) requires a hazardous employer, whose employees are exposed to hazardous materials during their routine duties, to provide training and test employees on the chemicals routinely encountered. The training must cover general awareness/familiarization, safety (can compliment or replace training required in 49 CFR 172.704 or EPA training) and specific functional training. Training is required on or before 1 October 1993 and must be performed at least every second year. New employees must be tested within 90 days of starting the job. The manager must maintain documentation of compliance on all employees that fall under this requirement a minimum of 90 days following employment termination.

4.3. Hazardous Materials Certification. The depot packaging activity provides necessary guidance to the transportation officer or authorized agent to ensure certification is completed by qualified personnel as required by AFJMAN 24-204 and other government regulations. ALC/LGMTs provide guidance as needed for the items they manage.

4.4. Special Responsibilities:

4.4.1. Hazardous Materials Packaging Requirements for Prime Items. Each ALC/LGMT establishes packaging and handling requirements for its assigned prime items.

4.4.2. MSDS. The requirement to provide an MSDS for hazardous materials must be stipulated contractually (See Chapter 3).

4.4.2.1. FED-STD-313 contains criteria for receiving MSDSs from the contractor.

4.4.2.2. Safety and health information based on the MSDS must be submitted to the Hazardous Material Information System (HMIS) database by the Institute of Environmental Safety and Occupational Health Risk and Analysis, IERA/RSH, 2513 Kennedy Circle, Building 180, Room 134, Brooks AFB TX 78235-5123.

4.4.2.3. MSDS prepared for chemicals covered by the OSHA Hazard Communication Standard must be routed through the base bioenvironmental engineer to USAF OEMB at Brooks AFB.

4.4.2.4. PHS&T information must be submitted to the HMIS data system (or reviewed to ensure that data is already present) for all MSDSs that contain a valid NSN. This information must be provided as required by Chapter 6. Each ALC/LGMT is responsible for providing the HMIS with transportation data based upon the MSDS data for the items they manage. Local procedures shall be initiated to establish a suspense file to ensure transportation information is provided for applicable items. Each ALC/LGMT should send a copy of the MSDS to Institute of Environmental Safety and Occupational Health Risk and Analysis, IERA/RSH.

4.4.2.5. Explosive items (Class 1) are not required to have an MSDS, but must be hazard classed in accordance with 49 CFR 173, Subpart C-Definitions, classification and packaging of Class 1.

4.4.3. Reviewing AFJMAN 24-204. All AFMC shall periodically review AFJMAN 24-204 to ensure uniformity of packaging with SPI, specifications, and standards. Where inconsistencies exist that require a change to AFJMAN 24-204, AFMC-LSO/LOPP, Packaging Policy, must be advised. If changes are required to specifications and standards due to AFJMAN 24-204 requirements, they shall be addressed to the preparing activity for the document.

4.4.4. Using Non-DoT Specified Packaging. When packaging other than that specified by the DoT is used for hazardous materials, the packaging must be of equal to or greater strength and efficiency as the packaging prescribed by the DoT as authorized by 49 CFR 173.7. The use of non-DoT packaging must be substantiated and documented as being equal to or greater than DoT requirements according to joint service document AFI 24-210/DLAR 4145.41, *Performance Oriented Packaging (POP) of Hazardous Materials*. The ALC/LGMT must coordinate with medical, safety, and item management personnel, as appropriate. All documentation supporting the alternate packaging must be kept on file until the item is removed from the DoD inventory.

4.4.5. The ALC/LGMT Packaging Management Sections' Responsibilities Toward Preparing Hazardous Materials for Shipment. The ALC/LGMTs shall provide guidance to shippers in determining material requirements. This guidance will address preservation, packing, and marking according to applicable directives governing the mode of transportation used and the hazardous potential of the item.

4.4.5.1. The ALC/LGMTs must ensure that hazardous materials regulatory requirements and cautionary markings are specified in procurement documents. POP requirements must be specified in contracts for all hazardous materials that have been identified as POP, regardless of destination.

4.4.5.2. The ALC/LGMTs shall assist depot packaging operations, off-base personnel shipping Air Force-managed NSNs, and contractors by providing hazardous materials guidance.

4.4.5.3. The ALC/LGMTs shall provide guidance on packaging, marking, labeling, and manifest preparation for hazardous wastes. Hazardous wastes include any solid waste defined as a hazardous waste by 40 CFR 261.3. Bioenvironmental engineers (SG) can provide guidance on identifying and handling hazardous wastes.

4.4.5.3.1. Hazardous Waste Packaging. Hazardous waste must be packaged in containers required by 49 CFR or in container of equal or greater strength and efficiency as required by DoD regulations. When containers required by 49 CFR are not used, the provisions of DoDM 4160.21, Chapter VI, must be followed.

4.4.5.3.2. Hazardous Waste Labeling and Marking. Hazardous waste shipments must be labeled with appropriate DoT hazard class labels and properly completed hazardous waste label. Shipments must be marked according to 40 CFR 262.32, 49 CFR 172, and MIL-STD-129, *Standard Practice for Military Marking*.

4.4.5.4. Hazardous Materials Bulletin Board System (HazmatBBS). This system provides an additional avenue for access to hazardous material information issued by the AFMC-LSO/LOPP, Packaging Policy Office. The Hazmat BBS is accessible 24 hours a day at https://www.afmc-mil.wpafb.af.mil/Hazmat. The Hazmat BBS facilitates proper packaging of military air shipments of hazardous materials and enhances packaging information transfer to field activities.

4.5. Hazardous Materials Training. All DoD personnel who handle, inspect, package and ship hazardous materials via military air must receive proper training. The training shall be conducted as required by AFJMAN 24-204 and Service policy directives.

Chapter 5

PACKAGING DATA AND SPI DEVELOPMENT

5.1. Packaging Data Development. Packaging data developed in-house must be prepared in accordance with MIL-STD-2073-1. The format is specified by DD Form 2326. It is not necessary to complete or maintain a hard copy of the DD Form 2326 if data is electronically prepared and entered into the AFMC packaging data system, Stock Control & Distribution (SC&D) System D035T Packaging, Transportation, and Regulated Material (PT&RM) system.

5.2. Packaging Data Approval. Packaging data procured from contractors must be approved by the ALC/LGMT personnel prior to use or entry into the D035T (PT&RM) data system. This applies to coded and SPI data. Stamps are used by authorized ALC/LGMT personnel to indicate approval of the packaging data. The center of this diamond-shaped stamp includes a number that identifies both the ALC/LGMT and the authorized packaging specialist. These identification numbers are listed below.

ALC	Stamp Numbers
OC-ALC	1-20
OO-ALC	21-40
SA-ALC	41-60
SM-ALC	61-80
WR-ALC	81-100

5.3. Preparing SPIs. Each ALC/LGMT maintains SPIs for items requiring special packaging techniques, materials, or containers. The detail must be sufficient for reproduction by base packaging personnel for return to a technology repair center (TRC), or prepare them for redistribution. Whenever possible, SPIs should be designed so that they can be applied to groups of similar items. If feasible, a short-life container shall be designed as an alternate pack to long-life containers. SPIs are maintained for all items with ERRC Codes/Designators C/XD1, S/ND2, and T/XD2 that are subject to shipment as a single item between field activities and repair facilities (see AFMAN 23-110, Volume I, Part 4, Attachment 1A27 (previously AFM 67-1, Volume I, Part 4, Attachment 27)). These might not always be “true” SPIs, in the sense that discrete SPIs are not required for items suitable for fast packs or standard packs. However, correlating the reparable item’s NSN with a SPI number of some type maintains the integrity of the Air Force reusable container program and conserves Air Force and DoD dollars. TO 00-85B-3, *How to Package Air Force Spares*, provides details on the coding system imbedded in the “pseudo” SPI number assigned to fast packs and standard packs. Use AFMC Form 157, **Special Packaging Instruction Worksheet**, when drafting SPIs. The purpose of the form is to standardize ALC/LGMT inputs to CADs and shall be reproduced locally at each ALC/LGMT.”

5.3.1. Format and Requirements. The order of preference for types of packaging techniques to be used, subject to cost effectiveness, is as follows:

- Fast pack.
- Standard pack.
- Discrete SPI drawing.

The order of preference should not be the sole determining factor in the type of technique above. Before selection, each type should be evaluated for practicality and cost-effectiveness (labor, materials, weight, cube, etc.) as well as fit and protection provided for the item in question. If an item can be adequately protected by use of a fast pack, then one should be specified. If not, evaluate a standard pack for use, etc. A computer-generated form may be used for SPIs developed using the CADS. The general format and requirements for SPIs can be found in MIL-STD-2073-1.

5.3.2. SPI Development on the CADS. The CADS is used to produce SPI and technical illustrations for assigned items and to change those SPIs which require revision. Any other uses require approval from AFMC-LSO/LOP (AFPTEF). Chapter 6 contains additional information about CADS. General criteria for SPI development are:

5.3.2.1. Packaging designs requiring revision due to known problems.

5.3.2.2. Active depot reparable without a SPI.

5.3.2.3. New SPIs received from contractors.

5.3.2.4. Revisions to SPIs for administrative changes.

5.3.2.5. Conversion of existing transportation packing orders (TPO) to SPI format.

5.4. SPI Numbering. The SPI numbering system provides for three categories of SPIs. Each is limited to ten character positions. Each category shall be identifiable through use of distinctly different alphanumeric arrangements within the ten positions. The first character position for each of the three categories shall always be the alpha service designator (A = Army, D = DLA, F = Air Force, M = Marine Corp, N = Navy). SPI numbers shall not be changed due to national item identification number (NIIN) changes (see TO 00-85B-3).

5.4.1. Discrete SPI Numbers. A Discrete SPI has a ten position number using the Service designator (alpha) in the first position and the NIIN for the remaining nine positions. (A001234567). This NIIN may represent a single item or a family of items.

5.4.2. Fast Pack Numbers. Fast packs (and standard packs) are given “pseudo” SPI numbers to facilitate effectiveness of the Air Force reusable container program. There are no drawings required to pack a fast pack (see TO 00-85B-3). The fast pack ten position number (ex. A000004XA5) consists of the following:

Position 1	Military service/agency designator (alpha IAW Section II, TO 00-85B-3)
Positions 2 - 6	Five zeroes (numeric)
Position 7	Method of Preservation (numeric IAW Section III, TO 00-85B-3)
Position 8	“X” (fast pack unique designator IAW Section II, TO 00-85B-3)
Position 9 - 10	Fast pack size code (alphanumeric IAW Section IV, TO 00-85B-3)

The last three characters, though, are the most identifiable indicator of a fast pack and are printed on each container. To assist depot packing and crating personnel, the fast pack NSN should be annotated in the “D” record of the DD Form 2326 when developing and entering packaging data to AFMC data systems (see TO 00-85B-3).

5.4.3. Standard Pack Numbers. Standard packs (and fast packs) are given "pseudo" SPI numbers to facilitate effectiveness of the Air Force reusable container program. There are no drawings required to pack a standard pack (see TO 00-85B-3). The standard pack ten position number (ex. A000004F01) consists of the following:

Position 1	Military service/agency designator (alpha IAW Section II, TO 00-85B-3)
Positions 2 - 6	Five zeroes (numeric)
Position 7	Method of Preservation (numeric IAW Section III, TO 00-85B-3)
Position 8	Simple Instruction Code (alpha IAW Section V, TO 00-85B-3)
Position 9 - 10	Standard pack size code (numeric IAW Section V, TO 00-85B-3)

5.5. SPI Dates. Only current, five-digit "ordinal dates" are used. The ordinal date consists of two characters for the year followed by three characters for calendar day of the year (ex. 00295). To date the fast pack and standard pack SPI number, use the ordinal date on which the item was assigned to the fast pack or standard pack. The addition or deletion of an item to an existing SPI does not constitute a change in the SPI ordinal date.

5.6. Distributing Copies of SPIs. Each new or revised SPI is distributed as follows within 5 workdays of file maintenance action:

5.6.1. The original is maintained at the responsible ALC/LGMT. One copy is sent to the TRC's packaging management section, and one copy each is sent to the depot preservation, packing, container fabrication, and shipment planning functions.

5.6.2. One copy of each SPI showing a long-life container is sent to AAC/WMGC, Eglin AFB FL 32542-5313, for inclusion into the CDRS.

5.7. Requests for Copies of SPIs. The AFMC packaging data system SC&D D035T (PT&RM) generates a cross reference list of SPIs and their associated NSNs quarterly for publication and distribution as a microfiche product (see paragraph 6.3.4.2). A list of users is maintained and updated by OO-ALC/LGMT (DSN 777-4995), Hill AFB UT 84056-5707 and distributed to a large number of users. The list is published by DAPS-OGDEN/PSM, 6011 Gum Lane, Building 1229, Hill AFB, Utah 84056-5826.

5.7.1. The Special Packaging Instructions Development and Distribution System (SPIDDS). SPIDDS consists of over 30,000 Air Force Special Packaging Instructions (SPIs). The automated faxing system is accessible from a touch tone phone by calling either one of the two DSNs 986-1860/674-4620 or either one of the two Commercial numbers (937) 476-1860/(937) 904-4620. The system will fax SPIs to the requester on demand. In addition, SPIDDS can be accessed at http://spidds.wpafb.af.mil/. SPIs can be downloaded directly for viewing and printing. (See Chapter 6, Paragraph 6.2)

5.7.2. Hardcopy SPIs. The responsible ALC/LGMT may also provide hard copies of SPIs upon request. Requests for SPIs must be submitted by letter or message. Add to your request to include NSN, SPI number, SPI date, name of requester, and a complete return address. The responsible ALC/LGMT will forward copies to the requester within 30 days of the request. Requester should send follow-up request if SPI is not received after 30 days.

5.7.3. SPI Audit. To minimize the potential for unnecessary SPI requests, the ALC/LGMT should conduct an annual SPI audit review. The purpose of this review is to correct inconsistencies between the packaging data system (SCS D035T (PT&RM)) and active SPI files. One method of accomplishing this audit is to generate a list of SPIs from the packaging data system (SCS D035T (PT&RM)) and match it against the responsible ALC/LGMT's active SPI file. Discrepant data in the packaging data field will be corrected as soon as possible to prevent erroneous SPI update requests from the field.

5.8. Marking SPI Containers. The applicable SPI number is marked on the exterior container. Fast packs are excluded. Additional marking requirements are determined by the ALC/LGMTs. Component parts of SPI containers which may be separated from the pack are identified with the SPI number.

5.9. Internal Industrial Operations Materials Handling. The ALC/LGMTs' responsibilities include design and development of material handling devices and/or containers used within industrial operations. ALC/LGMT personnel shall work in cooperation with equipment specialists, engineers, and technicians to determine special item characteristics of prime items as early as practical in the life cycle of items.

5.9.1. Material Handling and Technical Assistance Requirements of Prime Items. The ALC/LGMT provides technical assistance and support to the responsible engineering staff to ensure availability of adequate handling devices and/or containers. This is accomplished by assigning a packaging specialist to work with the product directorates' engineering functions on actions related to improving handling methods and devices. Packaging specialists shall provide the following assistance to the product directorates' engineering functions:

5.9.1.1. Information regarding special handling instructions for hazardous materials, electrostatic sensitive devices, blocking and bracing and other packaging features in accordance with regulations and limitations of the user.

5.9.1.2. The development of SPIs to facilitate materials handling within an industrial operations environment and as a final pack in the transportation environment.

5.9.1.3. Guidance pertaining to future transportation, packaging and handling plans to ensure the compatibility of each directorate's handling methods and systems with each other and with the Air Force transportation, packaging and handling program.

5.9.1.4. Information relative to limitations of the existing industrial operations resulting in damage to assigned prime items.

5.9.1.5. Surveillance of the industrial operations handling practices and equipment, conducted in conjunction with each directorate's engineering function or their material systems quality control program.

Chapter 6

PACKAGING DATA SYSTEMS

6.1. General. The ALCs and other AFMC activities as applicable, shall use and support approved packaging data systems. Contact the packaging specialist at HQ AFMC/LGTT (Traffic Management Branch), Bldg. 262, Room B117, 4375 Chidlaw Road, Wright-Patterson AFB OH 45433-5006, prior to upgrading or developing packaging data systems, or prior to developing system applications that impact or interface with existing packaging data systems.

6.2. Special Packaging Instruction Development and Distribution System (SPIDDS). SPIDDS is an automated multi-response system that serves as the Air Force central repository for Air Force-managed SPIs. SPIs are available 24 hours a day via the Internet, FTP and automated dial-in FAX. SPIs are in Microsoft Word format and searchable by NSN/SPI number. SPIDDS is a critical link in the distribution of packaging information to the Air Force DoD components worldwide. The primary means of SPI distribution is "SPI-by-FAX" which is a FAX-on-demand based retrieval system. (See Chapter 5, Paragraph 5.7.1)

6.2.1. AFMC-LSO/LOP (AFPTEF) is responsible for program management of SPIDDS. The SPIDDS server shall be kept operational and upgraded as necessary to ensure acceptable working conditions to support Air Force SPI requirements.

6.2.2. AFMC-LSO/LOP (AFPTEF) is responsible for the operational management of SPIDDS, which includes system upgrades, performance monitoring, evaluating recommendations to enhance customer support and to define future enhancements. In addition, AFMC-LSO/LOP (AFPTEF) will conduct periodic working group meetings and assist the ALC/LGMTs to ensure efficient operations.

6.3. Computer Aided Design System (CADS). The ALC/LGMTs and other AFMC activities as appropriate, shall maintain graphics support capability, including drafting, technical illustration, and CADS. The ALC/LGMTs maintain responsibility for the local operation of the CADS.

6.3.1. The CADS is to be used to produce SPIs and technical illustrations for assigned items, and to change SPIs which require revision.

6.3.2. AFMC-LSO/LOP (AFPTEF) is responsible for the system management of the CADS. The equipment shall be kept operational and upgraded as necessary to ensure acceptable working conditions for the ALC/LGMTs. The AFMC-LSO/LOP (AFPTEF) is responsible for the day-to-day operations of the mainframe CADS, system upgrade, periodic working group meetings, and development of system requirements for new equipment, and assists the ALC/LGMTs to ensure efficient operations.

6.4. Stock Control and Distribution System SC&D D035T Packaging, Trans portation, and Regulated Material (PT&RM) Data System. The ALC/LGMTs' personnel prepare packaging data (IAW MIL-STD-2073-1) and regulated materials data and enter it into the SC&D D035T (PT&RM) database. The ALC/LGMTs' personnel are also responsible for ensuring the accuracy of contractor-prepared packaging data and regulated materials data, and entering it into the SC&D D035T (PT&RM) database. The SC&D D035T (PT&RM) is primarily available at the ALC/LGMTs and provides on-line capability for interrogations, mass interrogations, data entry and clear text interpretations of packaging, transportation, and hazardous materials data. It also produces a number of reports and other data products (See Para-

graph 6.3.4). The point of contact for the SC&D D035T (PT&RM) is HQ AFMC/LGTT, Traffic Management Branch.

6.4.1. User Identifications/Passwords for SC&D D035T (PT&RM) Data Entry. The ALC/LGMTs and HQ AFMC/LGTT (Traffic Management Branch) are the only organizations authorized access for packaging data entry purposes. HQ AFMC/LGTT (Traffic Manage Branch) will enter clear text data and common item table updates as revisions to MIL-STD-2073-1 occur. The ALC/LGMTs' personnel shall enter packaging data. All other users have "read only" access. Therefore, it is important that ALC/LGMT personnel and HQ AFMC/LGTT (Traffic Management Branch) keep the packaging information current, as indicated above.

6.4.2. Entry of Nonprime Air Force Packaging Data. Storage at any ALC must include prime and nonprime items. The ALC/LGMTs' personnel may enter data into the blank SC&D D035T (PT&RM) fields for prime and nonprime items in order to package them for shipment and storage. The prime ALC/LGMT personnel must be notified by a SC&D D035T (PT&RM) change notice that a nonprime ALC/LGMT has entered data for an item. The prime ALC/LGMT personnel may either accept or overlay it with their own data. Existing data on a nonprime item may not be changed. Contact the prime ALC/LGMT if changes to existing data are needed.

6.4.3. Entry of Non-Air Force Packaging Data in SC&D D035T (PT&RM). Non-Air Force assets may be stored at an ALC. The depot packing activities require access to the packaging data for those items. This packaging data is developed by packaging personnel at the managing military service/agency, not by AFMC personnel. In order for depot personnel to access the data, it must be resident in SC&D D035T (PT&RM) or another central system, such as the Federal Logistics Information System (FLIS) at Battle Creek, MI. If the non-Air Force data is not resident in the FLIS, the ALC/LGMTs' personnel cannot establish the item in SC&D D035T (PT&RM) until a cataloging action is accomplished in the FLIS. The ALC/LGMTs' personnel must enter this data, exercising care to enter it exactly as the managing military service/agency has prepared it. To minimize pipeline times, the ALC/LGMTs' personnel must provide this data entry support expeditiously, usually within 24 hours from the time the depot requests it."

6.4.4. PT&RM Packaging Data Products. SC&D D035T (PT&RM) produces the following data products:

6.4.4.1. Unmatched Clear Text Summary Report, PCN A-D035T-601-QT-L59, indicates that a data code from MIL-STD-2073-1 was interrogated for a clear-text interpretation, but SC&D D035T (PT&RM) was unable to locate clear text for the code. OO-ALC forwards this product to HQ AFMC/LGTT for review to determine if clear-text codes should be added to SC&D D035T (PT&RM). HQ AFMC/LGTT determines causes for unmatched data (input error, invalid or old data code entered, clear-text data not available) and takes appropriate action based on the data analysis (add clear-text, alert the responsible ALC/LGMT of outdated data codes, or other appropriate action). This reporting requirement is exempt from licensing in accordance with AFI 37-124, The Information Collections and Reports Management Program; Controlling Internal, Public and Interagency Air Force Information Collections, Paragraph 2.11.3.

6.4.4.2. Quarterly SPI/Stock Number Cross Reference List, A-D035T-801-QT-L09 and A-D035T-802-QT-L09 provide SPI to stock number (801) and stock number to SPI (802) cross references on microfiche. These products are distributed Air Force-wide to users through DISA,

located at Hill AFB UT (See Paragraph 5.7). The requirements in this paragraph are exempt from licensing in accordance AFI 37-124, paragraph 2.11.3.

6.4.4.3. PT&RM Record Summary (Air Force Prime Packaging and Transportation), A-D035T-801-QT-L05, is produced for each ALC. The product shows the status of data coverage and is used to establish workloads and data development goals. The product is distributed to each ALC/LGMT.

6.4.4.4. Packaging Record Analysis, A-D035T-805-QT-L05, is provided to each ALC/LGMT. It shows the current of each federal supply class (FSC) or material management aggregation code (MMAC) and changes from the last quarter.

6.4.4.5. PT&RM Nonprime Packaging Change Notice, A-D035T-609-DA-L51, is provided to the prime ALC/LGMT to alert them that a nonprime ALC/LGMT has developed data for their item in order to package it. The prime ALC/LGMT has the option to overlay the data with their own data, or to accept it without change.

6.4.4.6. Stock-List Change Notice, A-D035T-801-DA-L11, notifies the affected ALC of stock-list change actions that impact their prime items.

6.4.4.7. Packaging Block Maintenance Exception List, A-D035T-601-DA-L10, identifies invalid data code entries.

6.4.4.8. PT&RM Deletion Notice, A D035T-601-WK-L50, notifies the prime ALC/LGMT that the D043A (Master Item Identification Database) system has deleted an NSN. Upon notification, the prime ALC/LGMT should remove any associated SPIs from their files and notify DLA packaging specialists for updating their prime SPI file which supports DLA packaging operations.

6.4.4.9. The following products result from interface with the G019 Maintenance Items Scheduled to Repair System:

6.4.4.9.1. The Quarterly Packaging Container Requirements (SPI), A-D035T-801-QT-L04, is provided to each prime and TRC ALC/LGMT and depot packaging function. The product lists, in SPI number sequence, the quantity of each SPI container required for the fiscal year.

6.4.4.9.2. The Quarterly Packaging Container Requirements (Non-SPI), A-D035T-802-QT-L04, is provided to each prime and TRC ALC/LGMT and depot packaging function. The product lists, in container dimension sequence and type of container, the quantity of each type and size of container required for the fiscal year.

6.4.4.9.3. The Quarterly Packaging Container Requirements (Unmatched), A-D035T-803-QT-L04, is provided to each prime and TRC ALC/LGMT and depot packaging function. The product lists, in NSN sequence, the quantity of each NSN scheduled to repair for which there is no packaging data.

6.4.5. Hazardous Material Data Products. Data products include:

6.4.5.1. Regulated Material Data Review Notice, A-D035T-601-DA-L01, is used by transportation personnel to identify hazardous materials for type cargo code (TCC) purposes.

6.4.5.2. PT&RM Regulated Material Block Maintenance Exception List, A-D035T-601-DA-L12, notifies user that codes entered in Regulated Block Maintenance are incorrect.

6.4.5.3. Nonprime PT&RM Change Notice (Regulated), A-D035T-603-DA-L51, are notices produced to the prime ALC/LGMT identifying data changes that have been made by a nonprime ALC/LGMT user. The prime ALC/LGMT has the option of overlaying the data with their own data, or accepting the nonprime input.

6.4.5.4. Nonprime Change Notice (Regulated Supplemental Data), A-D035T-604-DA-L51, are notices produced to the prime ALC/LGMT identifying supplemental data changes that have been made by a nonprime ALC/LGMT user. The prime ALC/LGMT has the option of overlaying the data with their own data, or accepting the nonprime input.

6.4.5.5. Regulated Material Block Interrogation Report (AFJMAN 24-204 Data), A-D035T-601-DA-L28, reports are produced in response to a request for a mass interrogation for hazardous materials data.

6.4.5.6. Regulated Material Block Interrogation Report (IATA Data), A-D035T-602-DA-L28, reports are produced in response to multiple field block interrogation requests of IATA data.

6.4.5.7. Regulated Material Block Interrogation Report (IMO Data), A-D035T-603-DA-L28, is produced in response to multiple field block interrogation requests of IMO data.

6.4.5.8. Regulated Material Block Interrogation Report (DOT Data), A-D035T-604-DA-L28, is produced in response to multiple field block interrogation requests of DOT data.

6.4.6. Reporting SC&D D035T (PT&RM) System Deficiencies/Suggesting System Enhancements. AFMC personnel will follow the procedures below when recommending changes to the SC&D D035T (PT&RM) System:

6.4.6.1. ALC users. Document deficiencies or enhancements through the functional OPR (FOPR). The user must provide the FOPR with a "screen dump print-out" of all suspected system deficiencies and provide them to the FOPR for resolution. The FOPR must attempt to resolve the deficiency or contact the SC&D D035T (PT&RM) system OPR at HQ AFMC/LGTT. Deficiencies may be also submitted by accessing the Automated Problem Reporting System (APRS) (Dimensions). Submit suggestions for system enhancements to the SC&D D035T (PT&RM) system OPR, documenting savings, benefits, costs, and any other pertinent information that shall assist the evaluator in determining feasibility for implementation. Submissions may be made through the normal correspondence process with the SC&D D035T (PT&RM) system OPR or by using AFMC Form 321, **C4 Requirements Document**.

6.4.6.2. HQ AFMC Users. The SC&D D035T (PT&RM) system OPR must document/handle system deficiencies in a similar manner as above, by resolving the deficiency at the lowest level or submitting it to the APRS (Dimensions). System enhancements received from other activities must be evaluated to determine applicability, cost effectiveness, AFMC-wide application. An AFMC Form 321 must be prepared by the system OPR and submitted to the SC&D D035T (PT&RM) SPO for resolution. The SC&D D035T (PT&RM) system OPR shall also ensure that enhancements are:

- Not duplicative of other PT&RM change requests.
- Not duplicative of ongoing system efforts occurring at higher levels (Air Force/DoD).
- Are appropriately coordinated if impacting other activities such as DLA or FLIS.

6.4.6.3. Data Products Changes. ALCs should notify the SC&D D035T (PT&RM) system OPR (and FOPR) regarding PT&RM data products that are no longer required. The SC&D D035T (PT&RM) system OPR will analyze this data, coordinate it with the other users, and contact the SC&D D035T (PT&RM) SPO if it is appropriate to delete the products. Any new product requirements should be handled in a similar manner.

6.5. Other Hazardous Materials Data System Responsibilities. The responsible ALC/LGMT has responsibility for entering hazardous materials data into the HMIS and the DoD personal computer-performance oriented packaging (PC-POP) system. The responsible ALC/LGMT must provide all additions, changes, and deletions to the packaging, transportation, and handling requirements for their prime items.

6.5.1. The Hazardous Materials Information System (HMIS). The HMIS provides technical information about the hazardous properties of items managed and used by DoD. It is used as a reference in conjunction with, not as a replacement for, existing regulations governing transportation, storage, handling, disposal, etc. Additions, changes, or deletions to a HMIS record identity (i.e., NSN, commercial and government entity (CAGE) code, part number indicator, focal point indicator) must be submitted by hard copy to Defense Supply Center (DSCR-VBB), 8000 Jefferson Davis Highway, Richmond VA 23297-5607. DSCR-VBB is the functional manager and will provide the required format. The program manager for HMIS is DLA/DLSC, Battle Creek, MI.

6.5.2. DoD PC-POP-Database. The PC-POP database provides a DoD listing of packaging configurations meeting the United Nations (UN) performance standards. Additions, changes, and deletions to the DoD PC-POP database will be submitted to DDC-TO, 2001 Mission Drive, New Cumberland PA 17070-5000. Contact them for input format requirements. To add a tested packaging configuration to the database, a completed test report must be provided. To change data, submit only the page that contains the changed data. Recertification test reports must be conducted prior to the expiration date of the test report currently loaded in the database. For deletion of data, contact the above address for instructions.

Chapter 7

PACKAGING DESIGN AND TESTING

7.1. General. The Air Logistics Center packaging management sections' (ALC/LGMTs') test activities are normally concerned with completed pack tests involving free-fall and rotational type drop tests, and repetitive shock tests. The purpose of these tests is to verify, by means of standard test procedures, new pack designs. The ALC/LGMT test results are recorded on AFMC Form 156, **Rough Handling Performance Test Record**, in duplicate. One copy is sent to AFMC-LSO/LOP (AFPTEF), and one copy is retained by the responsible ALC/LGMT. Some packaging design and test applications are beyond the capabilities of the ALC/LGMT. AFMC-LSO/LOP (AFPTEF) provides in-house capability in these areas.

7.2. Performance Oriented Packaging (POP) Tests. The ALC/LGMTs' test activities perform in-house POP testing or contract outside laboratories to do required testing. Test results must be sent for inclusion in the DoD POP data bank in accordance with the instructions provided in Chapter 6. AFMC-LSO/LOP (AFPTEF) can also perform POP testing and must submit reports as stated in Chapter 6.

7.3. AFMC-LSO/LOP (AFPTEF) and AAC/WMGC Capabilities. AFMC-LSO/LOP (AFPTEF) and AAC/WMGC provide in-house engineering capability for packaging design, prototype and testing, with AAC/WMGC specializing primarily in reusable shipping and storage containers for munitions. AFMC activities must consider the capabilities available within the Air Force at AFMC-LSO/LOP (AFPTEF) and AAC/WMGC (CDRS/MO) before contracting out for specialized containers or engineering evaluation. All activities engaged in development or procurement of specialized containers shall send a search request in accordance with DI-PACK-80683A prior to new container design and DI-PACK-80684A (MIL-STD-2073-1) following new container development, to AAC/WMGC (CDRS/MO) before initiating a new design or a production program. Use of these activities ensures standardization and promotes reusability.

7.3.1. Contact AFMC-LSO/LOP (AFPTEF) at 5215 Thurlow Street, Wright-Patterson AFB OH 45433-5540.

7.3.2. Contact AAC/WMGC (CDRS/MO) at Building 614, 102 West D Avenue, Suite 168, Eglin AFB FL 32542-5313.

7.4. Using AFMC-LSO/LOP (AFPTEF) and AAC/WMGC (CDRS/MO) Ser vices. AFMC-LSO/LOP (AFPTEF) and AAC/WMGC (CDRS/MO) work closely together to prevent duplication and to share technology and the use of either one must be considered in the following areas:

7.4.1. Long-Life Container Support. AFMC-LSO/LOP (AFPTEF) and AAC/WMGC (CDRS/MO), as appropriate, must be notified when long-life, complex, or highly engineered containers are required. Review by one of these activities is mandatory on specifications and Statements of Objective (SOO) before procuring new design long-life containers. Projects involving long-life containers must be coordinated with the ALC item management organization responsible for the item/system involved. AFMC-LSO/LOP (AFPTEF) and AAC/WMGC (CDRS/MO) will determine the extent of their participation in establishing the design criteria, writing specifications, preliminary design reviews (PDRs) and critical design reviews (CDRs), writing of test plans, evaluation of design, first article acceptance, and physical configuration audits which require a major engineering effort.

7.4.2. Computer Aided Design System (CADS) Engineering Solutions. AFMC-LSO/LOP (AFPTEF) is responsible for providing computer-aided engineering investigations and solutions on the CADS through finite element modeling and simulated testing programs.

7.4.3. Standardized Test Methods. AFMC-LSO/LOP (AFPTEF) develops and standardizes test methods and procedures to be used by the ALC/LGMTs during evaluation of completed pack designs. Standardization is necessary from a single source to provide validity and comparability of test results between different AFMC organizations. To achieve standardization of test results, it is necessary for AFMC-LSO/LOP (AFPTEF) to approve equipment and instrumentation used by the ALC/LGMTs for packaging tests. AFMC-LSO/LOP (AFPTEF) is responsible for coordinating all test equipment and instrumentation authorizations with the HQ AFMC Command Equipment Management Office.

7.4.4. Using AFMC-LSO/LOP (AFPTEF) Test Services. AFMC-LSO/LOP (AFPTEF) testing services should be considered when:

7.4.4.1. Testing requirements or problem areas include environmental testing over a long period or through use of environmental chambers.

7.4.4.2. Items require special environmental or transportation protection requirements above those normally encountered in a distribution cycle.

7.4.4.3. Technical or engineering differences exist between the packaging management function and container designers for major systems or equipment.

7.4.4.4. In-house or field tests of completed packaging systems require instrumentation to monitor quantitatively the levels of shock and vibration developed on the packaged equipment/material.

7.4.4.5. Performance design curves are required on package cushioning materials.

7.4.4.6. Requirements exist to test materials for which AFMC-LSO/LOP (AFPTEF) is DoD's lead service (AFMAN 24-206, Packaging of Materiel).

7.4.4.7. Testing required exceeds local capabilities.

7.5. Requests for Assistance. Requests for AFMC-LSO/LOP (AFPTEF) assistance must be submitted in Attachment 4. Response to requests for assistance is dependent on manpower, equipment availability, and project priority. A determination of the action to be taken is provided to the requesting organization within ten (10) days after receipt of request.

Chapter 8

PACKAGING COST REDUCTION AND CONTROL

8.1. General. All ALC/LGMTs are responsible for activating, aggressively pursuing, and closely monitoring a continuous program to control and reduce AFMC, Air Force, and DoD packaging costs.

8.2. Packaging Cost Minimization Program. The successful implementation of a packaging cost minimization program requires the participation and coordination of the ALC/LGMTs with:

8.2.1. Components located on the base involved with packaging.

8.2.2. End users who are involved in physically packaging materiel.

8.2.3. Personnel involved in acquiring materiel which requires packaging. Efforts must be directed toward:

- Obtaining optimum packaging design,
- Use of new and improved materials and methods,
- Use of commercial packaging when it meets anticipated distribution conditions,
- Specifying reusable containers and packaging materials whenever practical, and
- Careful analysis of packaging costs.

Actions that ALC/LGMT personnel can take to achieve efficiencies include, but are not limited to:

8.2.3.1. Ensuring that effective and economical materials, processes, and procedures are developed for their materiel or systems and are used within contractor facilities. For example, emphasis should be placed on eliminating unnecessary use of heavy and costly containers.

8.2.3.2. Identifying and recommending potential new uses for surplus long-life reusable containers to the operating commands in accordance with AFMAN 23-110 (AFM 67-1), Volume I, Part One, Chapter 10, Section W, Container Management. The CDRS will provide an in-depth review of technical data on existing container designs and surplus assets to determine their reusability in new defense system acquisitions or existing programs. Cost savings achieved through the use of CDRS for the reuse of existing containers or container designs shall be documented by the development or procurement activity and a copy of the documentation sent to CDRS.

8.2.3.3. The ALC/LGMT should inform contracting components that it can assist in packaging cost analyses. This expertise should be utilized in analyzing and evaluating contractor's proposed packaging charges.

8.3. Packaging Services Contracts (PSC). A packaging services contract should be used when savings can be effected by removing the packaging requirements from the prime contractor and placing it with another contractor. When requested by ALC contracting personnel, other commands, services or agencies, the depot shall provide estimated costs based on PSCs or obtain estimated costs from Defense Distribution Depot packaging operations.

Chapter 9

PREVENTION AND CONTROL OF PACKAGING DEFICIENCIES

9.1. General. Each ALC/LGMT is responsible for establishing and maintaining a program to minimize deficiencies resulting from improper packaging of items they manage.

9.2. ALC Packaging Management Section (ALC/LGMT) Responsibilities. ALC/LGMT personnel accomplish the following to minimize packaging damage:

9.2.1. Review available Standard Forms (SFs) 364 (**Supply Discrepancy Report (SDR)**), information copies and available data system products to identify trends in packaging deficiencies. Develop, revise, or modify packaging requirements if an SF 364 indicates that packaging damage resulted despite compliance with applicable packaging directives.

9.2.1.1. Notify the depot packaging organization of the changes to ensure that repackaging is accomplished to preclude further packaging damage.

9.2.1.2. Ensure necessary detailed packaging instructions are provided to using activities when deficiencies result from improper packaging to prevent recurrence.

9.2.1.3. Assist the depot packaging organization in determining the cost of correcting discrepancies, as requested.

9.2.2. Take necessary action to correct deficiencies resulting from improper preservation and packing. Corrective action can be, but is not limited to:

9.2.2.1. Training on an individual basis or for packers/workers on protection of particular items. This type of training is informal in nature and does not require establishing a formal training program. Any such training or guidance should be accomplished only with the permission or participation of the supervisor of the individuals/organization concerned.

9.2.2.2. Compliance with applicable directives.

9.2.2.3. The depot packaging office should notify the ALC/LGMT of packaging damage to items despite compliance with applicable directives.

9.2.2.4. When an SF 364 does not contain sufficient information to readily identify the shipment, discrepancy, mode of transportation, etc., request the necessary information by letter or message from the initiator of the report. Upon receipt of the corrected SF 364, take action as required.

9.3. Exceptions to Discrepancy Reporting Requirements. SFs 364 are prepared and acted upon according to AFJMAN 23-215 (formerly AFR 400-15) *Reporting of Item and Packaging Discrepancies*, and AFMAN 23-110 (formerly AFM 67-1), Volume I, Part One, Chapter 5, Container Management. An SF 364 is prepared for an item not packaged according to applicable packaging instructions even when there is no item damage. Exceptions to the requirement for an SF 364 when there is no item damage are:

9.3.1. Packages dated before the current SPI date.

9.3.2. Contractor (with deviation number) or other service packages are acceptable for reuse if it is a reusable, rather than a one-trip container.

9.3.3. The responsible ALC/LGMT must approve the use of a contractor pack by indicating the prime ALC and a deviation number in the lower right corner of the exterior container (example, WR-001).

9.3.4. When using a contractor pack, annotate “Contractor Pack” on the DD Form 1348-1A, **Issue Release/Receipt Document**, or the condition tag. You can recognize contractor packs by the contractor data markings required by MIL-STD-129, such as the purchase or delivery order number and the name and address of the contractor.

9.3.5. The next larger size type I or type II fast pack (PPP-B-1672, Boxes, Shipping, Reusable with Cushioning) can be used for shipments with uniform materiel movement and issue priority system (UMMIPS) priority 01-08 if the required type I (vertical) or type II (slide) container isn’t available.

9.3.6. The responsible ALC/LGMT has approved an alternate pack and provided a deviation number which is indicated in the lower right hand corner of the exterior container (WR-001).

9.3.7. You are using larger standard pack containers for shipment of unserviceable items when you don’t have the correct size.

Chapter 10

ASSISTANCE VISITS

10.1. General. Field assistance visits are customer service calls initiated to help packaging activities improve the quality of their operations. Assistance visits can provide a valuable means to reduce packaging deficiencies, reduce costs through increased utilization of reusable containers and reclaimed material, and reduce damage to Air Force materiel and containers. The ALC/LGMTs, in accordance with local procedures, will establish a means to optimize visits to Air Force activities or contractors within their geographical area. Visits may be conducted in conjunction with center team visits, or may be conducted independently at the request of the field activity.

10.2. Types of Assistance Visits. There are four types of field assistance visits:

10.2.1. Normal Logistics Field Visits. Normal logistics field visits to Air Force and ANG activities and Security Assistance Program recipient countries worldwide according to policies and procedures in AFMAN 23-110 (formerly AFM 67-1), Standard Base Supply Procedures, Volume I, Part One, Chapter 1, Section D, Field Visits, and DoD 4140.1-M (formerly AFMCR 400-21), *Wholesale Inventory Management and Logistics Support of Multiservice Used Nonconsumable Items*.

10.2.2. Special Extended Assistance Visits. Special extended field assistance visits to Air Force and ANG activities worldwide according to policies and procedures in AFMAN 23-110, Volume I, Part One, Chapter 1, Section D, Field Visits and DoD 4140.1-M.

10.2.3. Assistance Visits to Contractor Facilities. Assistance visits to CONUS contractor facilities according to AFMCI 21-113, *Contract Maintenance Programs for Depot Maintenance Activity Group (DMAG)* (previously Depot Maintenance Business Area (DMBA)).

10.2.4. Rapid Area Distribution Support (RADS). The RADS program within the Combat Logistics Support Squadrons (CLSS) provides transportation personnel (traffic management) assistance at base level, other DoD agencies or U.S. Government contract facilities. Transportation personnel are proficient in traffic management operations to include; freight packaging, heavy crating construction, and special packing. Primary missions include; assistance in emergencies, hostilities, unscheduled unit deployments, and natural disasters. During hostilities, RADS teams assist in the buildup and support of operating bases. In a natural disaster, RADS teams assist in the prompt return of an activity to operational status. Assists with abnormal workloads resulting from programmed/non-programmed weapon system conversions, major deployments, base activation/de-activation, large packaging tasks, re-warehousing projects, etc. Under extraordinary circumstances, requests for temporary manning assistance will be considered when an activity cannot meet requirements with their internal personnel resources.

10.2.4.1. The RADS “Fee-4-Service” program is centrally managed at HQ AFMC/LGXC, Wright-Patterson AFB OH, DSN 787-6703. All costs associated with RADS assistance to include; travel, per diem, supplies and miscellaneous equipment, will be absorbed by the requesting organization. All applicable funding documentation will be submitted to HQ AFMC/LGXC or the appropriate CLSS unit.

10.2.4.2. Request Procedures/Information.

10.2.4.2.1. Prioritize and forward requests for RADS assistance and extensions to their respective MAJCOM. Contact the 654th CLSS (Tinker AFB) when work will be performed at locations West of the Mississippi River and the 653rd CLSS (Robins AFB) for locations East of the Mississippi River.

10.2.4.2.2. All requests will include the following information:

10.2.4.2.2.1. Funds availability.

10.2.4.2.2.2. Detailed descriptions of tasks to be accomplished.

10.2.4.2.2.3. Estimated number of personnel by Air Force Specialty Code (AFSC).

10.2.4.2.2.4. Estimated number of days and the desired reporting date.

10.2.4.2.2.5. Country/theater clearance and passport requirements.

10.2.4.2.2.6. Security clearance requirements.

10.2.4.2.2.7. Unique requirements (i.e. weapons qualifications, vehicle operations qualifications, or other training).

10.2.4.2.2.8. Special clothing or personal equipment requirements.

10.2.4.2.2.9. Identify availability of on-base facilities (i.e. lodging, dining, clinics, hospitals, etc.).

10.2.4.2.2.10. Availability of government-owned vehicles.

10.2.4.2.2.11. Identify all points of contact to include the name, mailing address, telephone/FAX numbers, and E-Mail addresses of appropriate personnel. This must include the Resource Advisor/Financial Manager responsible for all funding issues.

10.2.4.3. Further information on how to request RADS assistance can be found in AFI 24-201, AFMAN 23-110, Volume 1, Part 1, Chapter 1, Section D, Paragraph 1.47, Technical Order (T.O.) 00-25-107, and on our website; http:/www.afmc-mil.wpafb.af.mil/HQ-AFMC/LG/lgx/clss/index.htm

10.3. ALC Packaging Management Section (LGMT) Representation:

10.3.1. A representative of an ALC/LGMT shall participate in assistance visits to the extent their budgets allow. Length of participation in the visit shall vary, depending upon factors such as size of the packaging operation, known degree of packaging proficiency, and known problems of the activity being visited.

10.3.2. If it is not feasible to provide a representative to participate in a center team visit, the appointed ALC/LGMT shall furnish necessary information and guidance to enable other members of the team to assume responsibilities normally accomplished by that representative.

10.4. Responsibilities of the ALC/LGMT Representatives. The ALC/LGMT representative shall review packaging, handling, and storage of items according to guidance provided by the managing center. The primary concern is to reduce damage to serviceable items and the prevention of further damage to serviceable items in their life cycle.

10.4.1. Prior to participating in an assistance visit, the ALC/LGMT representative shall review all available data pertinent to the packaging operation and handling methods at the activity to be visited. The ALC/LGMT representative also collects and reviews all special packaging handling guidance, and plans pertaining to items and weapons deployed at the base.

10.4.2. The ALC/LGMT representative provides guidance and assistance as necessary to improve the packaging of Air Force materiel, reduce damage resulting from improper handling, familiarize responsible personnel with latest technological improvements, and provide references where latest technical information can be obtained. Emphasis is placed on reusing specially-designed containers, cushioning, and on protecting unserviceable (reparable) items with necessary protection to prevent further deterioration or damage.

10.5. Packaging Checklist. The ALC/LGMT representative uses the Packaging Checklist (attachment 5) as a guide for reviewing a base packaging operation, in addition to any special handling guidance pertaining to specific items. This list is to be used as a guideline and intended to be all inclusive.

10.6. Findings and Recommendations. Findings and recommendations for action should be documented in sufficient detail to ensure that the problem is clear and action is taken by the responsible ALC/LGMT. Packaging concerns that require HQ AFMC or higher headquarters' actions should be formally documented in a letter to HQ AFMC/LGTT, Traffic Management Branch. This letter should regard specific actions, which have resulted in a high degree of effectiveness, for possible adoption by other Air Force or DoD activities. A letter of appreciation, or similar recognition, should be forwarded to these exceptional activities.

10.7. Follow-up. The ALC/LGMT designated to take corrective action establishes a suspense to ensure the problem is resolved.

Chapter 11

INTERFACE WITH OTHER ACTIVITIES

11.1. General. This chapter outlines packaging interfaces between the Air Logistics Centers' packaging management sections (LGMT) and other Air Force Bases and DoD agencies.

11.2. Base Requests for SPI Packs. When a container or pack prescribed by an SPI has been lost or damaged and a special packaging design creates an essential requirement that can't be fabricated by the base or obtained through local supply channels (GSA, local purchase), bases will submit their requirements to the responsible ALC packaging management section (LGMT).

11.2.1. All requests for containers must include an information copy to the major command of the requesting base and a fund cite to cover materials, labor, and transportation costs. AFI 24-202 contains specific guidance on base requests for SPI packs.

11.2.2. The responsible ALC's packaging management section (LGMT) may either grant a waiver from the SPI requirements or forward the request to the depot packing function to supply the SPI pack by the most economical means. These services should be provided on an exception basis since Air Force funds are an issue (the requester must fund the costs associated with the container manufacture, labor, and transportation costs).

11.2.2.1. Waivers are required each time a container is used in place of the original SPI. A waived container cannot be reused unless another waiver is granted. The waiver number should be placed only on a container that is not a SPI. After its use, a waiver number must be obliterated before further use of the container.

11.2.2.2. Depot packing functions are not staffed nor funded to be a volume manufacturer of containers for using activities. Also, some SPIs have design characteristics that are beyond the capability of depot packing operations to manufacture and must be procured from commercial sources.

11.2.3. Based on availability of containers or proximity of the requesting activity to the prospective supplier, the responsible ALC's packaging management section (LGMT) will do one of the following:

11.2.3.1. Direct the requestor to the depot packing organization at the managing ALC to supply the SPI pack to the requesting activity.

11.2.3.2. Direct the requestor to the Technology Repair Center (TRC). The TRC requests the preservation and packing component to supply the SPI pack to the requesting activity.

11.2.3.3. Forward a copy of the SPI and redirect the request to the ALC that has geographical responsibility for providing technical assistance to the requesting activity. The ALC's packaging management section (LGMT) requests their depot packing activity to supply the container to the requesting activity.

11.2.3.4. The TRC or ALC that has geographical responsibility will respond to requests by the responsible ALC's packaging management section (LGMT) to supply SPI packs. If an SPI pack contains a special packaging design not normally provided by the activity, the depot packing activity at the responsible ALC's packaging management section (LGMT) will provide the SPI pack to the requester base once a fund cite has been provided to cover container cost, and transportation charges.

11.2.3.5. Repeated requests for containers (particularly long-life) will be evaluated. The responsible ALC's packaging management section (LGMT) should contact the requesting base to determine the cause for the repeated requests. Activities must be encouraged to reclaim and reuse containers to the fullest extent possible. AF Form 451, Request for Packaging Service, prescribed by AFI 24-202, is the vehicle for activities to track container requests. Contact HQ AFMC/LGTT, Traffic Management Branch, for assistance with repeated requests, if necessary.

11.2.3.6. When reparable Air Force assets arrive at a Defense Distribution Depot or other DLA storage facility from a contractor or user, and the packaging requirements are not complied with, the sending contractor or user is responsible for any repackaging costs.

11.3. Support to Other DoD Agencies. Packaging services are developed and performed as specified in Depot Maintenance Interservice Support Agreements (DMISAs).

11.4. Depot Packaging Organizations. At the ALCs, continuing coordination between the packaging management sections (LGMT) and depot packing organizations is required. The depot packing functions are aligned with the DLA, but adhere to packaging requirements developed by AFMC when packing Air Force assets.

11.4.1. AFMC Consultation Services Provided to Depot Packaging Operations. ALC packaging management section (LGMT) personnel will:

11.4.1.1. Provide technical guidance and assistance to depot packing operations in achieving economical packaging, plan for surge requirements, and other related packaging matters. Continuous liaison is required to ensure effective results.

11.4.1.2. When packaging instructions are not available, provide technical assistance as quickly as possible to avoid shipping delays. This technical input will assist DLA in constructing containers and applying economical packaging materials, dunnage, processes, and procedures.

11.4.1.3. Depot packing and crating organizations may recommend changes in container manufacture and construction, packaging instruction, methods, and techniques to ensure proper preservation and packing of Air Force property. Suggestions that enhance the packaging by improving current packaging methods or reduce cost should be adopted. The responsible ALC's packaging management section (LGMT) will evaluate the packing and crating organization's suggestions to ensure that the integrity of the packaging will be maintained if the suggestion is adopted. However, DLA packing and crating organizations are not to deviate from Air Force prescribed packaging without first obtaining the consent of the responsible ALC's packaging management section (LGMT).

11.4.1.4. In the interest of the DoD economies, ALC packaging management section (LGMT) personnel should continue to provide depot packing supervisors with information that could help them reduce packaging costs. For example, the latest GSA stock list could be used to compare costs of different packaging materials which serve similar or identical purposes.

11.4.1.5. Emphasize reclamation and reuse of containers and packaging material, placing emphasis on retaining specially designed packs for use in reshipment or return of like items. This is a function of the CDRS at AAC/WMGC.

11.4.1.6. Provide guidance and assistance to ensure that only material which is adequately protected to withstand local climatic conditions is placed in outside storage.

11.4.1.7. The ALC packaging management section (LGMT) will assist the depot packaging function with interpretations and guidance concerning packaging data, as needed.

11.4.1.8. Assist with packaging requirements as requested.

11.4.1.9. Provide supplemental instructions regarding packaging of disassembled or incomplete items in the specified containers. Material deficiency report (MDR) exhibits are an example of items subject to disassembly. Supplemental instructions may be included in the SPI when disassembled turn-ins are expected routinely. When supplemental instructions cannot be provided, the responsible ALC's packaging management section (LGMT) will review/approve the packaging recommended by the depot packing component.

11.4.2. Packaging Materials Reclamation Groups. Packaging materials reclamation groups assure coordination between the activities that generate the requirement for reusable packaging materials and the activities responsible for reclaiming and reusing them. Periodic meetings with participation from appropriate organizations will ensure the continued effectiveness of the reclamation program, thereby conserving Air Force and DoD funds.

11.4.2.1. Membership. Membership on packaging materials reclamation groups should include the ALCs' packaging management sections (LGMT), depot packaging and storage, product directorates, and other ALC and/or tenant organizations as appropriate to each base. A representative from the local DRMO may also be included in the working group. Chairmanship should be determined locally. Since both AFMC and DLA maintain a vested interest in the reclamation program, it may be feasible to rotate or share chairmanship between DLA and AFMC Air Logistics Centers members. If depot personnel do not initiate efforts to convene a joint AFMC/DLA reclamation group, the ALCs' packaging management sections (LGMT) will take the initiative to do so.

11.4.2.2. Areas to Monitor/Coordinate. The frequency of meetings can be determined locally. However, it is advisable to meet at least quarterly (or more frequently, as needed) to set up guidelines and monitor progress in areas such as the following:

11.4.2.2.1. On-the-job training to ensure containers are opened and unpacked carefully to avoid damage to containers/components.

11.4.2.2.2. Determining which containers and materials are to be reclaimed and which may be disposed of by using activities.

11.4.2.2.3. Ensuring that reclaimed materials are protected from inclement weather during recovery, collection and storage.

11.4.2.2.4. Identifying collecting, screening, and storage sites and ensuring that they are physically separated from refuse, DRMO, and supply pickup sites.

11.4.2.2.5. Responsibility for recovering, collecting, screening, inspecting for assets inadvertently left in containers, and storing containers and materials.

11.4.2.2.6. Ensuring that assets found in reclaimed containers are returned to proper accountability and corrective action is taken to prevent disposal of usable assets.

11.4.2.2.7. Obtaining containers and materials from storage and screening and disposing of excess materials.

11.4.2.2.8. Ensuring that provisions of AFMAN 23-110 (AFM 67-1), Volume I, Part One, Chapter 10, Section W, Container Management, is followed for long-life containers and that TO 00-85B-3 is followed for short-life containers.

11.4.2.2.9. Publicizing the benefits from reclamation of containers and packaging materials.

11.4.2.2.10. Assisting with accurate calculated cost avoidance realized from reclamation.

11.4.2.3. Cost Avoidance Calculations. Appropriate reclamation cost avoidance calculations include avoidance realized through reused SPI packs, long-life containers, specification containers, cushioning material, and repaired wooden pallets. Materials that are saved and eventually discarded do not contribute to cost avoidance. The cost avoidance is computed by subtracting the cost of labor and materials used for refurbishment from the replacement cost. Labor, materials, and replacement cost may be established yearly. Other types of cost avoidance may be calculated, but not included in packaging reclamation cost avoidance. Other types include: containers, distribution of serviceable pallets, recovery of items of supply found in containers, and reused lumber.

11.4.2.4. Reclamation Group Meeting Minutes. Meeting minutes must be distributed to appropriate offices and group members. It is advisable to provide a copy of the minutes to AFMC-LSO/LOPP, Packaging Policy and HQ AFMC/LGTT, Traffic Management Branch.

GARRY B. RICHEY
Deputy Director for Supply Management, Director of Logistics

Attachment 1

GLOSSARY OF REFERENCES AND TERMS

References

AFPD 24-2, *Preparation and Movement of Air Force Materiel.* Defines overall Air Force policy and responsibilities in the areas of packaging and transportation. Implements DoDD 4140.1 for Air Force packaging programs.

AFI 24-202, *Preservation and Packing.* Implements AFPD 24-2 and provides overall guidance and responsibilities for Air Force packaging. Provides procedures for establishing and maintaining an Air Force reusable container/reclamation program.

AFJMAN 24-204/TM 38-250/NAVSUP PUB 505/MCO P4030.19G/DLAI 4145.3, *Preparing Hazardous Materials for Military Air Shipment.* Joint service document that describes packaging requirements for military air movement of hazardous materials.

AFMAN(I) 24-206 (formerly AFR-71-6)/AR 700-15/NAVSUPINST 4030.28C/MCO 4030.33C/DLAR 4145.7, *Packaging of Materiel.* Joint service regulation that provides overall direction for DoD packaging. It provides joint service implementation procedures for DoDD 4140.1, and contains information on the DoD Defense Packaging Policy Group (DPPG), the Container Design Retrieval System (CDRS), DoD Lead Service Test Activities. The AFMC-LSO/LOP (AFPTEF) charter is also included, outlining responsibilities as delegated by HQ USAF.

AFJPAM 24-207 (formerly AFP 71-8)/FM 38-702/NAVSUP PUB 504/DLAI 4145.7/MCO 4030.30D, *Preparation of Freight for Airlift Transportation.* School of Military Packaging Technology (SMPT) text that provides general information regarding specific areas of packaging.

AFJI 24-210 (formerly AFR 71-5)/ DLAR 4145.41, *Packaging of Hazardous Materials.* Joint service document that provides guidance for hazardous materials.

AFJPAM 24-234 (formerly AFP 71-19)/FM 38-746/NAVSUP PUB 539/MCO P4030.24C/DLAM 4145.6, *Logistics Packaging Management.* School of Military Packaging Technology (SMPT) text that provides general information regarding specific areas of packaging.

DoDD 4140.1, *Materiel Management Policy.* Contains the DoD-level policy for establishing and maintaining a DoD military packaging program.

MIL-STD-129, *Standard Practice for Military Marking.* Establishes container marking and labeling requirements. In addition, a separate handbook, MIL-HDBK-129, Military Marking, is available and may be used for guidance.

MIL-STD-2073-1, *Standard Practice for Military Packaging.* Contains procedures for determining the proper method of preservation and for selecting the proper interior and exterior container. Also contains data codes and their clear-text definitions.

TO 00-85-3, *Corrosion Control for Packaging.* Provides technical guidance for the procedures involved in cleaning, drying, preserving, wrapping, cushioning, and placing the item in the unit container.

TO 00-85-37, *Foam-In-Place (FIP) Packaging.* Explains techniques and gives guidelines for the application of FIP packaging.

TO 00-85B-3, *How to Package Air Force Spares.* Provides guidance for packaging items, usually depot reparable, assigned to a fast pack or standard pack. It also explains the Special Packaging Instruction (SPI) numbering system.

TO 00-110N Series, Applies to the receipt, use, storage, packaging, and disposition of radioactive materials.

TO 00-110N-2, *Radioactive Waste Disposal.* Provides instructions for the disposal of radioactive waste.

TO 2J-1-18, *Preparation for Shipment and Storage of Gas Turbine Engines.* Provides instructions for preserving and preparing turbine engines for shipment.

TO 2R-1-11, *Corrosion Control of Reciprocating Aircraft Engines.* Provides instructions for preserving and preparing reciprocating engines for shipment.

Terms

Commercial Packaging—The packaging methods and materials used by the commercial supplier.

Container Design Retrieval System (CDRS)—A program that provides a DoD centralized database for storing, retrieving, and analyzing container designs for the purpose of avoiding duplication in specialized container design and to promote reuse. MIL-STD-2073-1 (Standard Practice for Military Packaging), DI-PACK-80683 (CDRS Search Request), and DI-PACK-80684 (CDRS Data Input) govern the CDRS. This program is located at AAC/WMGC, Attn: CDRS/MO, Building 614, 102 West D Ave, Suite 168, Eglin AFB FL 32542-5313."

Corrosion—Deterioration of material due to electrochemical or chemical attack result from exposure to natural or induced environmental conditions, or from the destructive attack of fungi or bacteria.

Damage—Breakage, denting, marring, distortion, displacement, or abrasion of an item. The term also applies to the malfunction or inaccuracy of an item having mechanically or electrically/electronically functioning parts or requiring calibration.

Deterioration—The impairment of quality, value, or usefulness of an item.

Electrostatic Discharge (ESD)—A transfer of electrostatic charge between bodies at different electrostatic potentials, caused by direct contact or induced by an electrostatic field.

Electrostatic Discharge Sensitive (ESDS) Items—Parts or assemblies that are sensitive to ESD damage.

Fast Pack—A family of standard size, short-life, reusable, cushioned containers. Fast pack design permits shipment of a large number of different items within certain limits of size, weight, configuration, fragility, and environmental reacting characteristics. Reference T.O. 00-85B-3, How to Package Air Force Spares, and PPP-B-1672, Boxes, Shipping, Reusable with Cushioning.

Foam-In-Place (FIP) Packaging—The process for making foam cushions, blocking, and bracing by combining two or more liquid urethane components. The foam expands 30-100 times its original volume and encapsulates an article to protect it on all sides. The foam conforms to all shapes and contours of an item while in the semifluid condition before becoming solidified. Barrier material is used to protect critical surfaces from expanding foam. Reference T.O. 00-85-37, Foam-In-Place Packaging.

Hazardous Material/Regulated Article—A substance or material which the Secretary of Transportation determined to be capable of posing unreasonable risk to health, safety, and property when

transported in commerce, and which has been so designated. This includes all items listed as hazardous in Title 49 CFR, and AFJMAN 24-204.

Hazardous Waste—Any material that is subject to the hazardous waste manifest requirements of the Environmental Protection Agency (EPA) specified in 49 CFR Part 263, and as defined in 40 CFR Part 261.3/

Long-Life Container—A reusable shipping container, usually made of plastic or metal, that is specially designed to a minimum of 100 round trips or equal to the service life of the item it was designed to protect. These containers may be refurbished by appropriate maintenance practices to their original condition and subsequently reused. Long-life containers are usually accountable items of supply and are beyond the depot/base capability to construct. They shall be stock listed and managed by the activity assigned item management.

Packaging—Consists of the materiel and methods prescribed in Federal, international, or military specifications, standards, drawings or other authorized documents designed to provide a specific level of protection for materiel in transportation or storage. Packaging incorporates the processes and procedures used to protect materiel from deterioration and damage, and includes cleaning, drying, preserving, packing, marking, labeling, placarding, unitizing, and containerization."

Packing—Selecting and constructing the shipping container and assembling items or packages therein.

Preservation—Applying protective measures to prevent deterioration, including cleaning, drying, and the use of preservatives, barrier materials, cushioning, and containers, when necessary.

Product Centers:—ajfkl;jfdasfjdsa

—Aeronautical Systems Center (ASC), Wright-Patterson AFB OH. ASC is responsible for the research, development, test, evaluation, acquisition, modernization, and sustainment of aeronautical systems and related equipment for the Air Force. The Human Systems wing under ASC is responsible for human centered research, development, acquisition and specialized operational support.

—Air Armament Center (AAC), Eglin AFB FL. The AAC is responsible for development, acquisition, testing, deployment, and sustainment of all air-delivered weapons. The AAC applies advanced technology, engineering, and programming efficiencies across the entire product life cycle to provide superior combat capability. The Center plans, directs, and conducts test and evaluation of U.S. and allied air armament, navigation/guidance systems, and Command and Control (C2) systems. It operates two Air Force installations, providing host support to Eglin and Kirtland AFBs, and supports the largest single-base mobility commitment in the Air Force. AAC accomplishes its mission through four components: The Armament Product Directorate (Eglin), the 46th Test Wing (Eglin), the 96th Air Base Wing (Eglin), and the 377th Air Base Wing (Kirtland).

—Space and Missile Systems Center (SMC), Los Angeles AFB CA. Space and Missile Systems Center designs and acquires space and missile systems. After launch, the center completes satellite on-orbit checkouts before turning them over to other federal agencies.

Reparable Item—An item that can be reconditioned or economically repaired for reuse when it becomes unserviceable. (Depot reparable Air Force items may be identified by ERRC codes C, S, or T; or by ERRC designator XD1, XD2, or ND2 on the shipping document; and by the presence of a material condition tag/label. (See AFMAN 23-110, Volume I, Part 4, Attachment 27, (ERRC Codes)).

Reusable Container—A shipping and storage container designed for reuse without impairment of its

protective function and which can be repaired and/or refitted. Reusable containers are designed to be used, reclaimed and reused as a complete system, with the possible exception of the wrap or barrier material. (Reusable containers can be either short-life (minimum of 10 round trips) or long-life (minimum of 100 round trips).

Scrap—Wood and fiberboard packaging materials and containers for which the cost of recovery exceeds the value to the government for reuse.

Short-Life Containers—A reusable shipping container, normally constructed of wood or fiberboard, that is designed to last a minimum of 10 round trips. Fast packs are examples of short-life reusable shipping containers.

Standard Pack—A standardized method including preservation, packaging materials, and shipping container. Generally, items chosen for standard packs require less cushioning than those for fast packs (Reference T.O. 00-85B-3).

Technology Repair Center (TRC)—An Air Force facility designated to repair, modify, or otherwise process a specific item of equipment.

Unitization—Consolidating, or otherwise binding unit, intermediate or exterior packs onto a pallet or load base, so that the load can be handled as a unit through the distribution system.

Attachment 2

RECOMMENDED PRESERVATION AND PACKING COMMERCIAL (C) AND/OR MILITARY (M)

	Pres/Pack
Worldwide Expedite Shipments (NMCS, 777, 999, 879, or as identified by acquiring activity)	
Recoverable/Reparable (ERRC C, S, or T)	C/M (Notes 1&2)
Consumable	C/C (Note 2)
Worldwide Air Movement	
Recoverable/Reparable (ERRC C, S, or T)	C/M (Notes 1&2)
Consumable	C/C (Note 1)
Indoor Storage, (12 months or less)	
Recoverable/Reparable (ERRC C, S, or T)	C/M (Notes 1&2)
Consumable	C/C (Note 2)
Indoor Storage, (Over 12 months)	
Recoverable/Reparable (ERRC C, S, or T)	M/M (Note 1)
Consumable	M/C (Note 1&2)
Security Assistance/Foreign Military Sales/Grant Aid (Unless otherwise directed by country)	M/M (Note 1)
Outdoor Storage	M/M (Note 1)
War Readiness Material	M/M (Note 1)
Overseas Surface Movement	M/M (Note 1)

Factors to be considered by the Packaging Specialist when determining asset protection requirements:

a. Transportation hazardous material classification or regulated material packaging requirements and putting requirements on AFMC Form 158/Contract Section D (i.e., UN number, proper shipping name, etc.).

b. Projected asset use (install or storage).

c. Available technical information and personal experience.

d. Reusable container requirements for recoverables and putting requirements on AFMC Form 158/ Contract Section D.

e. Assets meeting two or more conditions, the highest applicable protection will be assigned.

See “Notes” on next page.

Notes:

1. For Military (M) packaging, comply with MIL-STD-2073-1, Standard Practice for Military Packaging.

a. Indoor storage, FMS, and Grant Aid assets (unless otherwise required), package in Level B shipping/ storage containers.

b. Assets protected for outdoor storage or bulk overseas shipping mode (e.g, engines, missiles, etc.) will require Level A containers.

c. Level B, fiberboard containers are authorized for assets smaller than 1 cubic foot and weighing less than 25 lbs (11.34kg).

2. For Commercial (C) packaging, package in accordance with ASTM D3951, as a minimum, if no specific/detailed commercial packaging requirements are identified in the contract or purchase order. Specific/detailed commercial packaging requirements need to be obtained from the contractor. Commercial packing for consumable items may be used if:

a. It is a Worldwide Expedite shipment, indoor storage for less than 12 months, or

b. It is requested by a Security Assistance/FMS country that will assume responsibility for damage. If a consumable item has a history of damage with a present commercial packaging, then military packaging needs to be specified.

Attachment 3

AIR FORCE PACKAGING TECHNOLOGY AND ENGINEERING FACILITY (AFPTEF) ENGINEERING SUPPORT REQUEST

PROJECT NAME: DATE:

ORIGINATOR: RECOMMENDED PRIORITY:

ADDRESS: Symbol:

POINT OF CONTACT: Telephone:

BACKGROUND:

OBJECTIVE:

ACTION REQUIRED: (Include any pertinent comments that may effect the project, for example, constraints, in-house testing limitations, supporting contractual developments, field testing, essential features, desired features, etc.)

COST CONSTRAINTS: (An example, cost of item, dollar being sustained, number in Air Force inventory, project cost, estimate of potential savings, Air Force mission impact, etc.)

NEED DATE/TIMEFRAME

AFPTEF PROJECT NUMBER: (If approved.)*

PRIORITY ASSIGNED: *

ESTIMATED MANHOURS: *

ESTIMATED COMPLETION DATE: *

APPROVED/DISAPPROVED: *

COMMENTS: *

* TO BE COMPLETED BY AFMC-LSO/LOP (AFPTEF)

Attachment 4

PACKAGING CHECKLIST

A4.1. Are publications governing Air Force packaging policy and procedures available and used by responsible management and supervisory personnel?

A4.2. Is a complete and up-to-date set of applicable technical orders, directives, instructions,

SPIs, etc., easily accessed? Are operating personnel familiar with these and do they know how to obtain them.?

A4.3. Are the latest special packaging instructions (SPIs) on file? Do they know how to obtain them?

A4.4. Are SFs 364 initiated by this activity fully completed and distributed according to AFJMAN 23-215 (previously AFR 400-54)?

A4.5. Are the discrepancies or damage, cited on SFs 364 against this activity, investigated and discussed by supervisory personnel with all concerned individuals?

A4.6. Are special containers, cushioning, or shock mounts, etc., which are developed for special items, identified and saved for reuse in packaging of like items or for unserviceable (reparable) items?

A4.7. Are unserviceable (reparable) items afforded necessary protection to prevent further deterioration or damage during shipment, handling, and storage?

A4.8. Is full use made of used boxes, crates, cartons, metal containers, and other packaging materials? Does the base have an organized program for reclamation of this material? Is the storage area handy and adequate?

A4.9. When containers are reused, are old markings of destination, weight, cube, and other handling instructions obliterated?

A4.10. Are packaging materials properly stored in bins or racks adjacent to the packaging line?

A4.11. Has a scale been incorporated into the packaging line to reduce extra handling?

A4.12. Are packaging, marking, and handling of hazardous materials being accomplished according to AFJMAN 24-204? Are hazardous cargo shipments separated, packaged, and handled according to 49 CFR and/or AFJMAN 24-204? Are shipments marked with the performance oriented packaging (POP) markings?

A4.13. Are adequate loading rules for trucks and railcars on hand to provide guidance for working personnel in proper loading, blocking, and bracing of Air Force material on carrier’s equipment?

A4.14. Are shipments for air movement being processed to obtain maximum protection with the least amount of weight and cube? Are the containers selected an used for shipment according to AFJPAM

24-207, Preparation of Freight for Airlift Transportation? (Does not apply to shipments of hazardous cargo.)

A4.15. Is MIL-STD-129 complied with to provide uniform marking of military supplies and equipment for shipment and storage?

A4.16. When material applicable to specific shipping document is packaged in two or more boxes for shipments, are these boxes serially numbered?

A4.17. Is an active corrosion control program in effect?

A4.18. Is there an active on-the-job training program? Are the packaging courses offered by the School of Military Packaging Technology (SMPT) used?

A4.19. Is care exercised by shop personnel in opening containers to minimize damage to seals, locking devices, mounting and cushioning?

A4.20. Is there adequate packaging equipment and material to support the mission?

A4.21. Is there an active reusable container/reclamation program available to all base organizations that generate packaging (for example, base packing, DRMO, product directorate, etc.)? Are periodic training sessions conducted?

A4.22. Does the base keep track of container requests using AF Form 451 and attempt to determine reasons for trends and resolve them?

A4.23. Does the base ensure that serviceable containers are not sent to DRMO and that unserviceable containers sent to DRMO are empty?

Attachment 5

AFMC FORM 158, PACKAGING REQUIREMENTS

PACKAGING REQUIREMENTS

PR, MIPR, OR DOCUMENT NUMBER

1. PACKAGING REQUIREMENTS: Block 1 shall always be completed and further defined in Blocks 2, 3, or 4. The term "Item ID" refers to line item number, item name, NSN/MMAC, part number, or any other way of identifying a particular item. MIL-STD-2073-1 represents Military Preservation (PRES) and Packing (PACK). Military packing consists of levels A, B, and Minimum (M). ASTM D3951 could be substituted by another document if specified in Block 2. Quantity Per Unit Pack (QUP) and Commercial Best Practice (CBP) are abbreviated. The reverse side of this form has the European Union environmental requirements.

ITEM ID	QUP (#)	MIL-STD-2073-1 PRES (X)	MIL-STD-2073-1 PACK (A/B/M)	COMMERCIAL ATSM D3951 PRES (X)	COMMERCIAL ATSM D3951 PACK (X)	CBP (X)	SPECIAL PACKAGING INSTRUCTION NUMBER

2. ADDITIONAL PACKAGING AND CONTAINER MARKING REQUIREMENTS *(Specify all revisions and dates of required specifications,*

3. INSTRUCTIONS TO CONTRACTING OFFICER: Insert appropriate clause(s) into Section D for applicable item(s) as indicated below.

- AFMCFARS 5352.247-9005, SHIPPING CONTAINER MARKING. ITEM NAME(s)OR NSN/MMAC ______
- AFMCFARS 5352.247-9006, MARKING OF WARRANTED ITEMS. ITEM NAME(s) OR NSN/MMAC ______
- AFMCFARS 5352.247-9007, SPECIFICATION COMMERCIAL PACKAGING (ASTM D3951). ITEM NAME(s) OR NSN/MMAC ______
- AFMCFARS 5352.247-9008, CONTRACTOR COMMERCIAL PACKAGING *(Commercial Best Practice)*. ITEM NAME(s) OR NSN/MMAC ______
- AFMCFARS 5352.247-9009, MILITARY PACKAGING AND MARKING. ITEM NAME(s) OR NSN/MMAC ______
- AFMCFARS 5352.247-9010, ENGINEERED OR SPECIALIZED CONTAINERS (CDRS). ITEM NAME(s) OR NSN/MMAC ______
- AFMCFARS 5352.247-9011, PACKAGING AND MARKING OF HAZARDOUS MATERIAL. ITEM NAME(s) OR NSN/MMAC ______
- AFMCFARS 5352.247-9012, PACKAGING FOR INSPECTION AND ACCEPTANCE AT DESTINATION. ITEM NAME(s) OR NSN/MMAC ______
- AFMCFARS 5352.247-9013, PACKAGING DATA *(Coded and/or Special Packaging Instructions)*. ITEM NAME(s) OR NSN/MMAC ______

4. CODED DATA: Coded requirements shall be interpreted in accordance with MIL-STD-2073-1.

	QUANTITY		PRES METH	C D	PRES MTL	WRAP MTL	CUSH DUNN	C T	UNIT CONT	INT CON	U C L	SPEC MKG	UNIT PACK WEIGHT	UNIT PACK SIZE			UNIT PACK CUBE		O P I
ITEM	QUP	ICQ											10	LENGTH 10	WIDTH 10	DEPTH 10	WHOLE CUBE	1000TH	

ORGANIZATION	PACKAGING SPECIALIST *(Typed Name/Signature)*	DATE

AFMC FORM 158, 20020102 *(EF-V1)* PREVIOUS EDITION IS OBSOLETE SEE REVERSE SIDE

THE FOLLOWING STATEMENTS ARE IN COMPLIANCE WITH THE EUROPEAN UNION *(EU)* REQUIREMENTS LEVIED ON THE UNITED STATES, CANADA, CHINA, AND JAPAN CONCERNING ENVIRONMENTAL INFESTATION. THESE REQUIREMENTS ARE SPECIFICALLY CONCERNED WITH THE PINEWOOD NEMATODE. THE STATEMENTS BELOW CITE THE REQUIREMENTS IN DETAIL AND COVER LUMBER USED TO BUILD CONTAINERS, EXISTING CONTAINERS, AND PALLETS USED FOR DELIVERIES RESULTING IN SHIPMENTS TO THE EU *(DIRECT, THROUGH AIR LOGISTICS CENTERS (ALCs) OR THROUGH OTHER BASES)*.

LUMBER AND PACKAGING/CONTAINER STATEMENT:

"ALL WOODEN LUMBER AND WOOD CONTAINERS PRODUCED ENTIRELY OR IN PART OF NON-MANUFACTURED SOFTWOOD SPECIES SHALL BE CONSTRUCTED FROM HEAT TREATED (HT) MATERIAL *(HT TO 56 DEGREES CENTIGRADE OR 133 DEGREES FAHRENHEIT FOR 30 MINUTES)*. CERTIFICATION IS REQUIRED BY AN ACCREDITED AGENCY RECOGNIZED BY THE AMERICAN LUMBER STANDARDS COMMITTEE (ALSC). CONSTRUCTION AND CERTIFICATION SHALL BE IN ACCORDANCE WITH NON-MANUFACTURED WOOD PACKING POLICY AND NON-MANUFACTURED WOOD PACKING ENFORCEMENT REGULATIONS, BOTH DATED MAY 30, 2001." THESE DOCUMENTS CAN BE FOUND AT www.aphis.usda.gov.

WOODEN PALLET STATEMENT:

"ALL WOODEN PALLETS PRODUCED ENTIRELY OR IN PART OF NON-MANUFACTURED SOFTWOOD SPECIES SHALL BE CONSTRUCTED FROM HEAT TREATED (HT) MATERIAL *(HT TO 56 DEGREES CENTIGRADE OR 133 DEGREES FAHRENHEIT FOR 30 MINUTES)*. CERTIFICATION IS REQUIRED BY AN ACCREDITED AGENCY RECOGNIZED BY THE AMERICAN LUMBER STANDARDS COMMITTEE (ALSC). CONSTRUCTION AND CERTIFICATION SHALL BE IN ACCORDANCE WITH NON-MANUFACTURED WOOD PACKING POLICY AND NON-MANUFACTURED WOOD PACKING ENFORCEMENT REGULATIONS, BOTH DATED MAY 30, 2001." THESE DOCUMENTS CAN BE FOUND AT www.aphis.usda.gov.

HARDWOOD SPECIES STATEMENT

"ALL WOODEN PALLETS PRODUCED ENTIRELY OF NON-MANUFACTURED HARDWOOD SPECIES SHALL BE IDENTIFIED BY A PERMANENT MARKING OF "NC" (NON-CONIFEROUS), 1.25 INCHES OR GREATER IN HEIGHT, ACCOMPANIED BY THE CAGE CODE OF THE CONTRACTED MANUFACTURER AND THE MONTH AND YEAR OF THE CONTRACT. ON PALLETS, THE MARKING SHALL BE APPLIED TO THE STRINGER OR BLOCK ON OPPOSITE SIDES AND ENDS OF THE PALLET AND BE CONTRASTING AND CLEARLY VISIBLE."

AFMC FORM 158, 20020102(Reverse)